```
Page 1
```

```
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                         Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                           Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                      Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-791-017A-1
2390
                                                                                                                                                                                                                                                                                                                                                                                                      4708233 seqs, 24227607955 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             February 20, 2005, 00:41:37 ; Search time 10034.3 Seconds (without alignments) 11541.209 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 agagggagacgttgag.....taaaaaaaaaaaaaaaaa 2390
                                                                                                                                                                                                                                GenEmbl:*
9b on: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                              gb_ba:*
gb_htg:*
gb_in:*
                                                                                                                                                                                                                                                                                                                                                                          9416466
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

ß	
됳	
ž	
E	
BS	

Result No.	Score	Query Match	Length	BB	Ħ	Description
<u>.</u>	2390	100.0	2390	٠ إ	CQ867364	CQ867364 Sequence
N	2388.4	99.9	2390	σ	AX411125	AX411125 Sequence
w	2388.4	99.9	2390	ø	HSEWS	X66899 H.sapiens
4	2369.4	99.1	2371	σ	A36460	A36460 Sequence
(J)	2369.4	99.1	2371	0	AR080100	AR080100 Sequence
6	2320	97.1	2364	9	BC011048	
7	2279.2	95.4	2326	σ	CQ730352	
8	2176	91.0	2189	ø	CR456490	
9	2165		2182	9	BC004817	Homo
10	2136	89.4	2164	ø	BC072442	Homo
11	2123	88.8	2189	ø	AK056309	AK056309 Homo gapi
c 12	2038.4	85.3	193559	N	AC137500	_
13	2033.6	85.1	155815	N	AC018774	Homo
c 14	2033.6	85.1	180718	ø	AL596087	AL596087 Human DNA
15	2033.6	85.1	182501	N	AC011221	AC011221 Homo sap:
16	2015	84.3	2396	U	BC083960	BC083960 Xenopus
c 17	2000	83.7	132906	N	AC109802	
	2000	83.7	163104	N	AC110672	
19	1969.4	82.4	1971	3	BT007706	ı

Query Match Best Local Similarity

100.0%;

Score 2390; DB 6; Length 2390; Pred. No. 0;

										ი	ი						ი	ი	a							
ť	7	44	43	42	41	40	39	38	37	36	35	34	ű	32	31	30	29	28	27	26	25	24	23	22	21	20
i i	8 F R	836.4	848	979	979	979	1014.8	1133.4	1273.8	1302.4	1306.8	1353.2	1423.8	1428	1579.8	1589.4	1710.8	1710.8	1710.8	1782.8	1782.8	1808.4	1808.4	1926.4	1927.4	1927.4
	9	35.0	35.5	41.0	41:0	41.0	42.5	47.4			54.7	56.6	59.6	59.7	66.1	Ġ	71.6		71.6	74.6	74.6	75.7	75.7	80.6	80.6	80.6
6	2683	2107	2665	2252	2179	1864	1303	2473	270337	275105	221924	7293	2440	1783	247757	221444	263925	235241	226400	2026	2026	1988	1988	2189	2188	2188
•	л	φ	υ	છ	9	φ	ø	છ	N	N	N	9	ഗ	σ	N	N	N	N	N	9	σ	ø	6	10	10	6
	RC075120	HSU35622	BC063928	AF254088	AF254087	AF254086	BC000527	AK026270	AC099212	AC118907	AC105889	HSM808920	AJ719366	CQ721057	AC121282	AC113313	AC106522	AC098231	AC128482	AK127624	CQ850483	AK056681	AX714390	BC068226	MMEWS	AX305537
poor other workships o	BC075120 Xenonia +	U35622 Homo sapien	BC063928 Xenopus t	AF254088 Homo sapi	AF254087 Homo gapi	AF254086 Homo sapi	BC000527 Homo sapi	AK026270 Homo sapi	AC099212 Rattus no	AC118907 Rattus no	AC105889 Rattus no	BX648769 Homo sapi	AJ719366 Gallus ga	CQ721057 Sequence	AC121282 Mus muscu	AC113313 Mus muscu	AC106522 Rattus no	AC098231 Rattus no	AC128482 Rattus no	AK127624 Homo sapi	CQ850483 Sequence	AK056681 Homo sapi	AX714390 Sequence	BC068226 Mus muscu	X79233 M.musculus	AX305537 Sequence

ALIGNMENTS

ORIGIN	CDS	TITLE JOURNAL FEATURES SOURCE	ACCESSION VERSION VERSION KEYWORDS SOURCE ORGANISM	RESULT 1 CQ867364 LOCUS DEFINITION
/note="unnamed protein product" /codon_start=1 /protein_id="CAH33891.1" /protein_id="CAH33891.1" /db_xref="c1:5197590" /tabslation="wksTDySTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY /tabslation="wksTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTSYDTT ATVTTTQASYAAQSAYGTQFAYATSYGQPFASTAFTEPQDGKKPTETSQPQSSTGGYNQ PSLGYGQSXYGQQFTSYPPQTGSYSQAESQYSQQSSTGAYDTT ATVTTTQASYAAQSAYGTQFAYATSYGQQFAATAFTEPQDGKKPTETSQPQSSTGGYNQ PSLGYGQSXYGQQFSYPQFSYPPTAFPSYPPTSYSSTOPTSYDQSSYSQQNTYGQPS SYGQQSSYGQQSSYGQQFTSYPPQTGSYSQAESQYSQCSSTGQCSSFRQDHPSSMG YYGQESGGFSGFERRSMSGPDNRGBGRGGFBCMSRGGRGGGRGGGFGFNKKF KFGGPMIHIYLDKETGKFKGDATVSYEDPFTAAAAVEMFDGKDFQGSKLKVSLARKKPP MNSNRGGIPPARGBRGMPFPLRGGFGGFGGFGGFGGRGGRGGGFGFPFRGFRGRG FGGGNVQHRAGDMQCENPGGGNQMFAMTECNQCKAPKPBGFCPPFRGFRGSRGN PSGGNVQHRAGDMQCENPGGGNQMFAMTECNQCKAPKPBGFLPPFPPFBGDDRGRG GPGGMRGGRGGGFGGFFGGMGGAMFRGGGGGGRGGDRGGFGFFFRGFRG GPGCMFGGGFGGFGGMGAMFRGGGGGRGGDRGGFGFFFFFFFFFGGFFGGFGGMGAMFRGGGGRGGFGGFFFFFFFFFF	/organism="Homo sapiens" /mol_type="unassigned DNA" /db_xref="taxon:9606" 442014	Obendorf,M. and Wolf,S. Modulation of the activity of nuclear receptors via EWS Patent: EP 1455190-A 1 08-SEP-2004; Schering Aktiengesellschaft (DE) , Location/Qualifiers 12390	.1 GI:51997589 iens (human) iens a; Metazoa; Chc ; Butheria; Pri	CQ867364 2390 bp DNA linear PAT 13-SEP-2004 Sequence 1 from Patent BP1455190.

Qy 1021 CG	Qy 961 AT Db 961 AT	Qy 901 CG	Qy 841 AT 	Oy 781 CT Db 781 CT	Qy 721 TG Db 721 TG	Qy 661 CA Db 661 CA	Qy 601 AC 	Qy 541 AC 	Qy 481 TG 	Qy 421 CT 	Qy 361 CA Db 361 CA	Qy 301 CA(Qy 241 TG 	Oy 181 GC			Qy 1 AGJ Db 1 AGJ	Matches 2390;
TGGAGAGCGAGGTGGCTTCA TGGAGAGCGAGGTGGCTTCA	TGATCGTGGAGGCATGAGCA	JACCAGGAGAGAACCGGAGCA 	CCGACAGGACCACCCCAGTA	\CAGCCAAGCTCCAAGTCAAT. \CAGCCAAGCTCCAAGTCAAT.	ITCAACAAAGCAGCTATGGGC	HTACTCTCAGCAGAACACCT	TCCATCCTACCCTCCTACCA	GAGTAACTACAGTTATCCCC 	.GACTAGTCAACCTCAATCTA GACTAGTCAACCTCAATCTA	.TGGGCAGCAGCCAGCCA 	CACCCAGGCCTCCTATGCAG	CCAGCCTGTCCAGGGGTATG	AACTTCTTATGGACAGCCTC AACTTCTTATGGACAGCCTC	CACTGATGTCAGCTATACCC	AGGATATGCACAGACCACCC AGGATATGCACAGACCACCC	CAGTACCTATAGCCAAGCTGCAGO	GGGAGACGGACGTTGAGAGA 	Conservative 0; N
CGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCA 	ATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCCGGTGGAATGGGCAG	CGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGAGGGGG 	ATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTC	CTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCTACGGGCAGCAGAGTT	TÓGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCACCC	CAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTA	ACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG	ACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGC	TGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGG	CTATGGGCAGCAGCAGCAGCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCAC	CACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC	CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCA	TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATA	GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCG 	TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAAC 	CTATAGCCAAGCTGCAGCGCAGCGCGCTACAGTGCTTACACCGCCCAGCCCA 	AGAGGGAGACGGACGTTGAGAGAACGAGGAGGAGGAGAGAAAATGGCGTCCACGGATT	Mismatches 0; Indels
ATGAAGGACCAGATCT 1080 aTGAAGGACCAGATCT 1080	GCGGTGGAATGGGCAG 1020 GCGGTGGAATGGGCAG 1020	GCAGGGGAAGAGGGGG 960 	AGTCTGGAGGATTTTC 900	ACGGGCAGCAGAGTTC 840	CACCCCAAACTGGATC 780	GACAGCAGAGTAGCTA 720 GACAGCAGAGTAGCTA 720	CTAGTTATGATCAGAG 660 CTAGTTATGATCAGAG 660	TGCAGCCAGTCACTGC 600	CCAGCCTAGGATATGG 540	ATGGAAACAAGCCCAC 480	AGCCTGCTTATCCAGC 420	CCACTGCTACAGTCAC 360	CTGCCCCCAGGCATA 300 CTGCCCCCCAGGCATA 300	ATGGGCAGACCGCCTA 240 ATGGGCAGACCGCCTA 240	GGACA GGACA	0-0	IGGCGTCCACGGATTA 60	
						·		·									·	
ъ <i>4</i>	? B £	S B 5) B &	S B 1	S B 5	Q B &	g - B - 1	O B 4	O B &	S B 1	8 B 1	S B :	Q B (Q D	& B	& B	Q B	Q
101	041	1981 GCACC												1261 AGGAA 1321 CGTGG		1141 AGGAT	1081 TGATC	1081 TGATC
GGCCACAACAT	CCAGATTATI	CCAGATTTATT		GTGGCTTTGGT	TCAGAGGTGGC	TCAGAGGTGGC			ACCCCTCTGGAAAC		:CACCACTCCGT	 AGCCTCCAATG	 ;aatggtttgat ;agcctccaatg	 AGCCCAAAGGO AATGGTTTGAT	AGATGAACAAG AGCCCAAAGGC	TAAATGACAGT AGATGAACAAG	TAGGCCCACCT	TAGGCCCACCT
TATGATTATTO	TTTTAAACCAG	AGAGATCGGCC	AGAAGAGGAGG			CGTGGTGGAGA	CTCCCGCCACC	CTCCCGCCACC		 GGAGATAGAGGI GGAGGAAAACGTO	 GGAGGTCCAGGI GGAGATAGAGGI	 AACAGTATGCGG GGAGGTCCAGGJ	 GGGAAAGATTT: AACAGTATGCG(GATGCCACAGTO GGGAAAGATTTT	 agaacteggca/ gatgccacagt(GTAGATCCAGA! GTGACTCTAGA!	GTAGATCCAGAI
	AAATGTTTAA	CTACTAGATGC	ACGTGGAGGACC	ACGTGGAGGACC		AGGTGGCTTCAT	HIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	CTGGAGAACAGA	TGGAGAACAGA	HIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	AGGCTTCCCTCC				TGTTBAGATGAACAAGAGAACTGGGCACACTGTCCATGATCCACCACTCTACCTGGAACAAGGCTG	GATCTGGCAGA	GAAGACTCTGA	свалсястства
TTAGTATTTT		ATTTATAATT	TGGAAAAAT	GGGGAAAAAT	GGGGGCCCCC	CCGTGGTGGC		 GTGCAACCAG GGGTGGTGAT	TGGAGACTGO	 :AAGAGGACTGO	 TCCTGGGGG	HIIIIIIIII	ACTTAAAGT ACCCCGTGA	CCCACCCAC ACTTAAAGT	CATCTACCT	CATCTACC	CAACAGTGO	CAACAGTGO
-,	4 2 =	კ ⊬_:	3 8=	8 7 =	ล ห=:	റ്റ് റ്—	ดี กั—	റ് 🛱 —	월 K=	ਲ ਲ ≕	8 K=	ನ ೪=	8 G=	경 월드	:ନ ନ=	[A A A	ନି ≱=	-≱
н—	g 20—														GGACAAGGAAAC 1	AGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGT 1 TGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAC 1		AATTTATGTACA 11

n—n 4 4	Qy 301 CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGGTTATGATACCACCACTGCTACAGTCAC 360	QY 241 TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTCCAACTGCCCCCCAGGCATA 300	QY 181 GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA 240	QY 121 TCAAGGATATGGACAGACCACCCAGGCATATGGCCAAGCAAAGCTATGGAACCTATGGACA 180		Qy 1 AGAGGGAGACGTTGAGAGAAGAGGAGGAGGAGGAAAATGGCGTCCACGGATTA 60	Query Match 99.9%; Score 2388.4; DB 6; Length 2390; Best Local Similarity 100.0%; Pred. No. 0; Matches 2389; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	D D	ö	Horne,D., Peres-da-Silva,S. and Vockley, sion profiles in liver cancer 0229103-A 3772 11-APR-2002;	SOURCE Homo sapiens (human) ORGANISM Homo sapiens Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.	NN Sequence 3772 from Patent WO0229103.	N.	Qy 2341 TTTTTTAAAATAAAATCCAAATGTTTAATAAAAAAAAAA	Qy 2281 GTGGAGAACCAAGAGGGCCTCTTAACTGTAACAATGTTCATGGTTGTGATGTTTTTTTT	Qy 2221 AAAAATGGTTGTTTAAGACTTTAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATT 2280	Qy 2161 GAAGAAACATTAAAACAAGTTAAATGGTAGTGTGCGGAGTTTTTTTT
	···.																
\$ B \$	B 8	´ B &	8 8 8	}	B &	ት 5	B 8	<u> </u>	B 성	유 성	B &	B 8	B 8	B 8	₿ .Q	· B &	g Q
1441 GCCACCACCACCCAGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCG 1500	1381 GAAGAACCTTCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCAT 1440	1321 GTGGAATGFTTGATGGGAAAGATTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCG 1380 1321 GGTGGAATGGTTTGATGGGAAAGATTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCG 1380	AGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCACCC	TGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATTAACTGACATGACAAGGAAACTGGGCAACCCATGATCCACATTAACATGACCAAGGAAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACTGTTAAGATGAACAAGGAAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAACTGTTAAGATGAACAAGGAAACTGGGCAACCCATGATCCACATCTACCTTGGACAAGGAAAAC	AGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGT	1081 TGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAAGTGCAATTTATGTACA 1140	CGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCT	961 ATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAG 1020 	901 CGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGG 960 	841 ATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTC 900	781 CTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCTACGGGCAGCAGAGTTC 840	721 TGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCACCC	661 CAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATCGACAGCAGAGTAGCTA 720	601 ACCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG 660	541 ACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGC 600	481 TGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGG 540 	421 CTATGGGCAGCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCAC 480

```
REFERENCE
AUTHORS
                                                                                                                          RESULT
HSEWS
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                 SOURCE
ORGANISM
                                                                                      ACCESSION
VERSION
                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                           ક
                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                         밁
                                                                                                                                                                                                             S
                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                   밁
                                                                           KEYWORDS
                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1501
                                                                                                                                                                                                                                                                                                                                           2161
                                                                                                                                                                                                                                                                                                                                                                   2161
                                                                                                                                                                                                                                                                                                                                                                                            2101
                                                                                                                                                                                                                                                                                                                                                                                                                    2101
                                                                                                                                                                                                                                                                                                                                                                                                                                            2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1561 AGGGAACCCCTCTGGAGGAAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAA 1620
                                                                                                                                                                                          2341
                                                                                                                                                                                                                 2341
                                                                                                                                                                                                                                         2281
                                                                                                                                                                                                                                                                  2281
                                                                                                                                                                                                                                                                                           2221
                                                                                                                                                                                                                                                                                                                   2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2041
                                                                                                             HSEWS
H.sapiens
                                                                                      X66899.1
 Delattre, O.,
                        Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                RNA binding protein.
Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACTACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCGGGTGGTGATCGTGGCAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAA 1620
                                                                                                                                                                                                                                                         AAAAATGGTTGTTTAAGACTTTTAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATT
                                                                                                                                                                                                                                                                                                                                           ATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                            GACTACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAAATGGATAAAGGCGA 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGCCCTGGTGGCATGCGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ANAGECTGAAGGETTECTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCC
                                                                                                                                                                                                     GTGGAGAACCAAGAGGGCCTCTTAACTGTAACAATGTTCATGGTTGTGATGTTTTTT
                                                                                                                                                                                                                                                                                          AAAAATGGTTGTTTAAGACTTTAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCCTGGACCTTTGAT
                                                                                                                                                                                          GI:547565
                                                                                                               EWS mRNA.
 Zucman, J.,
 Plougastel, B.,
                                                                                                                            2390
                                                                                                                          đđ
                       Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                             mRNA
 Desmaze, C., Melot, T.
                                                                                                                             linear
                                                                                                                             PRI 28-JUN-1995
                                                                                                                                                                                         2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1740
                                                                                                                                                                                                                                                                                                                                                                                                                   2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1860
                                                                                                                                                                                                                                                                                                                   2280
                                                                                                                                                                                                                                                                                                                                                                   2220
                                                                                                                                                                                                                                                                                                                                                                                            2160
                                                                                                                                                                                                                                                                                                                                                                                                                                             2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1560
                                                                                                                                                                                                                                                                  2340
                                                                                                                                                                                                                                                                                           2280
                                                                                                                                                                                                                                                                                                                                           2220
                                                                                                                                                                                                                                           2340
```

```
JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                               8
                                    S
                                                                                                            밁
                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                         5
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Sin
Matches 2389;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    polyA_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_binding
121
                                                      121
                                                                                                            61
                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Peter,M., Kovar,H., Joubert,I., de and Thomas,G.
Gene fusion with an ETS DNA-binding translocation in human tumours
Nature 359 (6391), 162-165 (1992)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (26-MAY-1992) O. Delattre, Lab. de Genet. des Inst. Curie, 26 rue D'Ulm, 75231 Paris Cedex, FRANCE On Sep 23, 1994 this sequence version replaced gi:31279.
                                                                                                                                                                                                                                                                                        μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Delattre, O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission
                                                                                                                                                                                                                                                                                                                                                                            Similarity
   TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA
                                 TCAAGGATATGCACAGACCCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA
                                                                                                            CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAC
                                                                                                                                                CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAC
                                                                                                                                                                                                                           (bases 1 to
                                                                                                                                                                                                                                                                                                                                              99.9%; Score 2388.4; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="EWS"
/codon_gtart=1
/prodoin_gtart=1
/prodoin_gtart=1
/protein id="CAA47350.1"
/protein id="CAA47350.1"
/protein id="CAA47350.1"
/protein id="CAA47350.1"
/db_xref="GI:31280"
/db_x
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1127. .1387

/gene="EWS"

/bound_moiety="RNA"

2162. .2167

/gene="EWS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/chromosome="22q12"
/clone="BF1AC5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2371
/gene="EWS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /tissue type="brain"
/clone_Tib="cDNA, Stratagene 936206"
/dev_stage="foetus"
1. .2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          44. .2014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /evidence=experimental
2350. .2355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LMEOMGGRRGGRGGPGKMDKGEHROERRDRPY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /gene="EWS"
/evidence=experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'gene="EWS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     de Jong, P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               domain caused
                                                                                                                                                                                                                                                                                                                                                                                                             멂
                                                                                                                                                                                                                                                                                                                                                 1;
                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rouleau, G., Aurias, A.
                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  by chromosome
                                                                                                                                                                                                                                                                                                                                                                                                             2390;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   des
                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                     120
                                                                                                                                                                                                                                 60
                                                         180
                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                    0
```

Дb	Ş	B 8	B &	B 8	B &	84	γ γ	B &	D 49	gg Qy	g Q	B &	B &	g Q	8 8	B &	g Q	Qy dd
201 TGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAC 1260	01 TGTTAAGATGAACAAGAGAAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAC 12	1141 AGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTTTAAGCAGTGTGGGGT 1200 	1081 TGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACA 1140	1021 CGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCT 1080	961 ATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGACGCGGTGGAATGGGCAG 1020	901 CGGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGG 960	841 ATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTC 900	781 CTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCAGCAGCAGCAGAGTTC 840	721 TGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCACCC	661 CAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCTATGGACAGCAGAGTAGCTA 720	601 ACCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG 660	541 ACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGC 600 [481 TGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGG 540	421 CTATGGGCAGCCAGCCAGCAGCTGCACCTACAAGACCGCAGGATGGAAACAAGCCCAC 480	361 CACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC 420	301 CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCAC 360	241 TGCPACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATA 300	181 GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA 240
\$ 8	Ŗ Q	B 8	용 5	P &	?	· B &	B 5) B &	, B &	B &	B &	}	B &	B 8	B &	, B &	B &	Db Q
2281 GIGGAGAACCAAGAGGGCCICTIAACIGIAACAAIGITCAIGGIIGIIGIITITI 2341 TITTITTAAAATAAATTCCAAATGTTTAATAAAAAAAAAA	2281 GTGGAGAACCAAGAGGGCCTCTTAACTGTAACAATGTTCATGGTTGTGATGTTTTTTTT	2221 AAAAATGGTTGTTTAAGACTTTAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATT	2161 GAAGAAACATTAAAACAAGTTAAATGGTAGTGTGCGGAGTTTTTTTT	2101 AIGITGCCACACATAIGATIAI CCTIGITGTACTIAGAITITTACACATTIGT 2101 AIGTTGCCACACATAIGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGT 2101 AIGTTGCCACACATAIGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGT 2101 AIGTTGCCACACATAIGATTATTCCTTGTCTGTACTTTAGTATTTTTTCACCATTTGT 2101 AIGTTGCCACACATAIGATTATTCCTTGTTCTTTTTTTTTT	2041 GACTACCAGATTTATTTTTTTAACCAGAAAATGTTTTAAATTTATTATTTTTTTT	1981 GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATICCAGAGAGCCCGCAGAGCTGCATT 1981 GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATT 1981 GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATT	1921 GJANCAGATIGGGAGGAAGJAGAGGAGGACGTIGGAGGACCTIGGAAAAATIGGATAAAGGCGA 1921 GGAACAGATIGGGAGGAAGAAGAGGAGGACGTIGGAGAAAATIGGATAAAGGCGA 1921 GGAACAGATIGGGAGGAAGAAGAGGAGGACGTIGGAGAAAATIGGATAAAGGCGA	1861 CCGAGGTGGCTTTGGTGGAGAAGACGAGGTGGCCTTGGAGGGGCCCCCTGGACCTTTGAT 1920 1861 CCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTTGGAGGGCCCCCTGGACCTTTGAT 1920	1801 AATGTTCAGAGGTGGCCGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGATGGA 1860 1801 AATGTTCAGAGGTGGCCGTGGTGGAGAACAGAGGTGGCTTCCGTTGGTGGCCGGGGCATGGA 1860 1801 AATGTTCAGAGGTGGCCGTGGAGACAGAGGTGGCTTCCGTTGGTGGCCGGGGCATGGA 1860	1741 TGGCCCTGGTGGCATGGCGGGAAGAAGTTGGCCTCATGGATCGTGGTGGT 	1681 AAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGG	1621 TCCGGGTTIGTGGAAACCAGAACTTCGCCTGGAGAACGAGGTGCAACCAGTGTAAGGCCCC	561	1501 CATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGG	1441 GCCACCACTACTCGTGAGGTCCAGGAGGCCCAGGAGTCCTGGGGGACCCATGGGTCG	1381 GAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCGCCACCCGTGAGGGCAGAGGCAT	1321 CGTGGAATGGTTTGATGGGGAAAGATTTCAAGGGAGCAACTTAAAGTCTCCCCTTGCTCG	1261 AGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCACCC

```
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
A36460
LOCUS
                               ঠ
                                                            닭
                                                                                  ঠ
                                                                                                                                S
                                                                                                                                                                                  S
                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
             문
                                                                                                            吊
                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 99.1
Best Local Similarity 100.
Matches 2370; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarxhini; Hominidae; Homo.

B 1 (bases 1 to 2371)
B Aurias, A., Delattre,O., Desmaze,C., Melot,T., Peter,M.,
Plougastel,B., Thomas,G. and Zucman,J.
NUCLEIC ACID CORRESPONDING TO A GENE OF CHROMOSOME 22 INVOLVED IN
RECURRENT CHROMOSOMAL TRANSLOCATIONS ASSOCIATED WITH THE
DEVELOPMENT OF CANCEROUS TUMONS
LEVELOPMENT OF CANCEROUS TUMONS
Patent: WO 9323549-A 1 25-NOV-1993;
CENTRE NAT RECH SCIENT (FR)
Other publication FR 2691475 931126
Other publication JP 8500964T 960206.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2341
                                                                                   440
                                                                                                                                                                                                                                                              181
             481
                                    500
                                                                                                              361
                                                                                                                                     380
                                                                                                                                                              301
                                                            421
                                                                                                                                                                                        320
                                                                                                                                                                                                                241
                                                                                                                                                                                                                                       260
                                                                                                                                                                                                                                                                                        200
                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                          140
                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                          90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A36460
Sequence
A36460
                                                                                                                                                                                                                                                                                                                                                                                                                   \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A36460.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                   GCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAA
                                                                                                                                                                            ACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTAT
                                                                                                                                                                                                                                                                                                                                ACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                    GCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACC
                          TCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTAT 559
                                                                                                               ACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAG
                                                                                                                                                                                                                                                                                 ACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAG
                                                             GCCACI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         μ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
/dev_stage="FOETUS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GI:2293778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         from Patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 2369.4; ; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2371 bp
W09323549.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 2371;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PAT 05-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                      439
                                                                                                                                                                                        379
                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                         319
                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                           199
                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                   60
             540
                                                             480
                                                                                                               420
                                                                                                                                                                 360
                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                         259
                                                                                                                                                                                                                                                                                                                                                                                           139
                                                                                                                                                                                                                                                                                                                                                                                                                                            79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                              S
                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                맑
                                                                                                                                                                                                                                                                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                       밁
                                         5
                                                                         吊
                                                                                              Ś
                                                                                                                           문
                                                                                                                                                                           밁
Ş
                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                                                        1220
                                                                                                                                                                                                                                                                                                                                                                                 1141
                                                                                                                                                                                                                                                                                                                                                                                                        1160
                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1100
 1640
                                                                                                                            1441
                                                                                                                                                                                                                             1321
                                                                                                                                                                                                                                                    1340
                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                        1280
                                                                                                                                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                 GATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCAGAGGTGGGCGGGGAGGAAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGCAGCAGCCTCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCT
 AACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTC
                                        GGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAG
                                                                          GATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGGTTCCCCGAGGGAACCCCTCTGGAGGA
                                                                                      GATAGAGGAGGCTTCCCCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGA
                                                                                                                                        GGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGA
                                                                                                                                                                                           AGTATGCGGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACCCCGTGGA
                                                                                                                                                                                                                              ANAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAAC
                                                                                                                                                                                                                                             AAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAAC
                                                                                                                                                                                                                                                                               GCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGG
                                                                                                                                                                                                                                                                                            GCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGG
                                                                                                                                                                                                                                                                                                                               ACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAAGCCCAAAGGCGAT
                                                                                                                                                                                                                                                                                                                                               ACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGGCCCAAAGGCGAT
                                                                                                                                                                                                                                                                                                                                                                                 ACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                  ACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGATCGTGGAGGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCATGAGTGGCCCTGATAACCGGGGCAGGGGGAAGAGGGGGGATTTGATCGTGGAGGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGCAGCCACCCCCCAGTTACCCCACCCCCAAACTGGATCCTACAGCCAAGCTCCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAAC
                                                                                                                            GETCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCCGTGGAGGA
                                                                                                                                                                            AGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGA
                                                   1639
                                                                             1560
                                                                                                    1579
                                                                                                                                                      1519
                                                                                                                                                                               1440
                                                                                                                                                                                                        1459
                                                                                                                                                                                                                                                                                1320
                                                                                                                                                                                                                                                                                                         1339
                                                                                                                                                                                                                                                                                                                                  1260
                                                                                                                                                                                                                                                                                                                                                         1279
                                                                                                                                                                                                                                                                                                                                                                                  1200
                                                                                                                                                                                                                                                                                                                                                                                                          1219
                                                                                                                                                                                                                                                                                                                                                                                                                                   1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1039
                                                                                                                             1500
                                                                                                                                                                                                                              1380
                                                                                                                                                                                                                                                       1399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 739
```

пов	JOURNAL FEATURES	AUTHORS TITLE	SOURCE ORGANISM REFERENCE	ACCESSION VERSION KEYWORDS	RESULT 5 AR080100 LOCUS	p 8	B 8	B 8	₽ &	B 8	B 8	B 8	B 8	B 8	₽ \$) B Q	B 8	В
rce	development of cancerous tumors, and nucleic acids of resulting from said translocations Patent: US 5968734-A 1 19-OCT-1999; Location/Oualifiers	Aurias,A., Dela Ploougastel,B., Nucleic acid co recurrent chrom	a X	AROBO100.1 GI:10006835	AR080100 2371 bg	2360 CAAATGTTTAATAAAAAAAAAAAAAAAAA 2390 	2300 TCTTAACTGTAACAATGTTCATGGTTGTGATGTTTTTTTT	2240 TTTAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATTGTGGAGAACCAAGAGGGCC 2299	2180 TTAAATGGTAGTGTGCGGAGTTTTTTTTTCTTCCTTCTTTTAAAAATGGTTGTTTAAGAC 2239	2120 GATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGTGAAGAAACATTAAAACAAG 2179 	2060 TAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATAATGTTGGCCACAACATTAT 2119 	2000 GATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATTGACTACCAGATTTATTT	1940 AGAGGAGGACGTGGAGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGA 1999 	1880 GGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGA 1939 	1820 GETGGAGACAGAGETGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGA 1879	GAAGAAAAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAAGGTGGCCGT	1700 CCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGG 1759	
Ś	B 8	D Qy	Db Qy	Db Qy	D Qy	Db Qy	g Qy	Db Qy	рь	Оу	B 8	B &	ου Oy	B &	B 8	B &	Query Ma Best Loc Matches	ORIGIN
980 AGCAGAGGTGGGCGGGGAGGAGGAGGAGGGGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGC	920 AGCATGAGTGGCCCTGATAACCGGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATG	860 AGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCCGGACCAGGAGAGAACCCGG	800 CAATATAGCCAACAGAGCAGCAGCAGCTACGGGCAGAGTTCATTCCGACAGGACCACCCC	740 GGGCAGCAGCCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGT	680 ACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTAT	620 ACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAAC	560 CCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCCATCCTACCCTCCT	500 TCTAGCACAGGGGGTTACAACCAGÓCCAGGCCTAGGATATGGACAGAGTAACTACAGTTAT	440 GCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAAACCTCAA	380 GCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGC	320 TATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCCAC	260 CCTCCCACTGGTTATACTACTCCAACTGCCCCCAGGCATACAGCCAGC	200 ACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAG	140 ACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTAT	80 GCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACC	20 GAGAACGAGGAAGGAAGAGAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCT	Match 99.1%; Score 2369.4; DB 6; Length 2371; Local Similarity 100.0%; Pred. No. 0; 17. Indels 0; 18. 2370; Conservative 0; Mismatches 1; Indels 0;	/mol_type="unassigned DNA"

2119	2060 TAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATAATGTTGGCCACAACATTAT 2 	
2059	000 GATCGGCCCTACTAGATO	
.999	1940 AGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGA 1 	
.939 .920	80 GAAGACGAGGIGGCCCIGGGGGGCCCCCIGGACCITI	
.879 .860	820 GGTGGAGA 801 GGTGGAGA	
.819	760 GGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGI 	
.759 .740	700 CCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGG	
.699	640 AACTICGCCTGGAGAACAGAGTGCAACCAGT	
.639	580 GGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCC.	
.579	520 GATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCGAGGGAACCCCTCTGGA	
ப் ப	460 GGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGA 	
4. 4.	400 AGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGA	
399	340 AAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATG	
339	280 GCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGG 1	
279	220 ACTGGGCAACCCATGATCCACATCTACCTGG	
N N	ATGAACAAGAGA 1 ATGAACAAGAGA 1	
سم سم	100 GATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTG 1 	
099	040 TTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTA 1	
020	1	

5 8 5

밁

BCM-HGSC

맑

S

밁

S 밁 S 片 δ 묽 Ş 밁 Ś 밁 Ś 문 Ś 밁 δ В á 밁 S 밁 δ 밁 ð 밁 S 밁

8

```
JOURNAL
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
BC011048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rocus
                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                 REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Strauberg, L. J., Feingold, E.A., Grouse, L.H., Derge, J.G.,
Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,
Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,
Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,
Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,
Generation and initial analysis of more than 15,000 full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2341 CAAATGTTTAATAAAAAAAAAAAAAAAAAA 2371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BC011048 2364 bp mRNA linear PRI 29-JUN-2004 Homo sapiens Ewing sarcoma breakpoint region 1, transcript variant EWS, mRNA (cDNA clone MGC:16900 IMAGE:4340116), complete cds. BC011048 BC011048.1 GI:15029674
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Baylor College of Medicine Human Genome
Sequencing Center
                                                                                                                                                         NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
                                                                                                                                                                                                                              Direct Submission
Submitted (25-VUL-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mammalia; Eutheria;
1 (bases 1 to 2364)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                    Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Lou Staudt
                                                                                                                                                                                                                                                                                                                                                                                                                  Proc. Natl. Acad. Sci.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                          human and mouse cDNA sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAAATGTTTAATAAAAAAAAAAAAAAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATTGTGGAGAACCAAGAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTTAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATTGTGGAGAACCAAGAGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTAAATGGTAGTGTGCGGAGTTTTTTTTTTTCTTCCTTCTTTAAAAATGGTTGTTTAAGAC
                                                                                                                                                                                                                                                                                                                                                             (bases 1 to 2364)
                                                                                                                                                                                                                                                                                                                                                                                                                  U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                  99 (26), 16899-16903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2179
```

```
밁
                                                                                                                                                                                                                                                    ई
                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                   र्
      ş
                                           밁
                                                                                     Ś
                                                                                                                              밁
                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SdC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2336;
        340
                                                264
                                                                                                                                204
                                                                                                                                                                                                                   144
                                                                                                                                                                                                                                                           160
                                                                                       280
                                                                                                                                                                          220
                                                                                                                                                                                                                                                                                                                                            100
                                                                                                                                                                                                                                                                                                    84
                                                                                                                                                                                                                                                                                                                                                                                     24
                                                                                                                                                                                                                                                                                                                                                                                                                            40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Clone distribution: MGC clone distribution information can be found through the I.M.A.G.B. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 12 Row: p Column: 1 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 4885224. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Loulseged;
Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                           GAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGCAGGCTACAG
    TACCACCACTGCTACAGTCACCACCCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGG
                                                                     TCCAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGA
                                                                                                                                                                                                               AAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGC
                                                                                                                                                                                                                                                                                              TGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACA
                                                                                                                                                                                                                                                                                                                          TGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACA
                                           TCCAACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGA
                                                                                                                                                           AACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTAC
                                                                                                                                                                                                                                                         AAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCCAGGCTCAGACCACTGC
                                                                                                                                                                                                                                                                                                                                                                                   GAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAG
                                                                                                                              AACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /codon_start=1
/product="Ewing sarcoma breakpoint region 1, isoform EWS"
/product="Ewing sarcoma breakpoint region 1, isoform EWS"
/protein_id="AMHI1048.1"
/db_xref="GI:15029675"
/db_xref="LocusID:2130"
/db_xref="MIN:133450"
/translation="MASTDYSTYSQAAAQGYSAYTAQPTQGYAQTTQAYGQQSYGTY
/translation="MASTDYSTYSQAAAQGYSAYTAQPTQGYAQTTQAYGQQSYGTY
/translation="MASTDYSTYSQAAAQGYSAYTAQPTQGYAQTTQAYGQQSYGTY
/translation="MASTDYSTYSQAAAQGYSAYTAQPTQGYAQTTQAYGQQSYGTQAYDTTT
ATVTTTQASYAAQSAYGTQAYAYGQAPASYPTSYSTQPTSYDGYSYGQNSYSQQNTYQQPS
GQPTDYSYTQAGYTAYAYGQABATAYTSYSQAAFSQYSQASSYGQQSSTGQNTYQQPS
PSIGYGQSSYGQQSYGQQPTSYPPQTGSYSQAPSQYSQASSYGQQSSTGQNTSAGAGTSX
SYGQQSSYGQQSYGQQPTSYPPQTGSYSQAPSQYSQASSYGQQSSTGQNTSAGAGTSX
SYGQQSSYGQQSYGQQPTSYPPQTGSYSQAPSQYSQASSYGQQSSTGQNTSAGAGTSX
SYGQQSSYGQQSYGQQPTSYPPQTGSYSQAPSQYSQASSYGQQSSTGQMSAGAGTSX
SYGQQSSYGQQSYGQAPSTSYPPQTGSYSQAPSQYSQASSYGQQSSTGQMSAGAGTSX
SYGQQSSYGQQSYGQQPTSYPPQTGSYSQAPSQYSQASSYGQQSSTGQMSAGAGTSX
SYGQQSSYGQQSYGQAPSTSYPPQTGSYSQAPSQYSQASGAGAGAGAGATX
SYGQASSYGQQSSYGQQSTGAAAXAX
SYGQASSYGQASYGQASTAXAXX
SYGQASSYGQASYGAAAXAXX
SYGQASSYGQASYGAAAXAXX
SYGQASSYGAAAXAXX
SYGQASSYGAAAXAXX
SYGQASSYGAAAXAXX
SYGQASSYGAAAXAXX
SYGQASSYGAAXAXX
SYGQASSYGAAAXAXX
SYGQASSYGAAXAXX
SYGQASSYGAAXX
SYGAAAXAXX
SYGAAAXAXX
SYGAAAXAXX
SYGAAAXAXX
SYGAAAXAXX
SYGAAAXX
SYGAAAXAXX
SYGAAAXX
SYGAAXX
SYGAAAXX
SYGAAXX
SYGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /gene="EWSR1"
/note="synonym: EWS"
/note="focusid:2130
/db_xref="Locusid:2130
/db_xref="MIM:133450"
28. ..1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPGGDRGRGG
PGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGGPPGPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /lab_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /db_xref="taxon:9606"
/clone="MGC:16900 IMAGE:4340116"
/tissue_type="Lymph, lymphoma"
/clone_Tib="NIH_MGC_85"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="Vector:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene="EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97.1%;
99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               _host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 2320; DE
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          pCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 2364;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  u
•
                                             323
                                                                                     339
                                                                                                                              263
                                                                                                                                                                      279
                                                                                                                                                                                                                 203
                                                                                                                                                                                                                                                         219
                                                                                                                                                                                                                                                                                                                                         159
                                                                                                                                                                                                                                                                                                                                                                                   83
                     S
                                                               밁
                                                                                                    δ
                                                                                                                                                  밁
                                                                                                                                                                                S
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                  뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                          1420
                                                               1341
                                                                                                                                                  1281
                                                                                                                                                                                         1300
                                                                                                                                                                                                                                                                                                                    1161
                                                                                                                                                                                                                                                                                                                                                           1180
                                                                                                                                                                                                                                                                                                                                                                                                    1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1041
                                                                                                                                                                                                                                   1221
                                                                                                                                                                                                                                                                          1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
ACCCCGTGAGGGCAGAGGCATGCCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                         ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                        CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                   CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                         CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCCTATGAAGA
                                                                                                                                                                                                                                                                                                                    CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                              CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                  CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                   CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGACGCGGTGGAATGG---GCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCGGGGCAGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCGGGGCAGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAAACCGGAGCATGAGTGGCCCTGATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCACCCACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCCTATGGGCAACCGAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCCATGCAGCCAGTCACTGCACCTCCATCCTACCTACCAGCTATTCCTCTACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGGTTACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACTCAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCAGCCACTGCACCTACAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1419
                                                                                                                                                  1340
                                                                                                                                                                                         1359
                                                                                                                                                                                                                                   1280
                                                                                                                                                                                                                                                                            1299
                                                                                                                                                                                                                                                                                                                    1220
                                                                                                                                                                                                                                                                                                                                                           1239
                                                                                                                                                                                                                                                                                                                                                                                                       1160
                                                                                                                                                                                                                                                                                                                                                                                                                                              1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     459
                          1479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            383
```

```
RESULT 7
CQ730352
LOCUS
            DEFINITION
ACCESSION
  VERSION
                                                                                                       2380
                                                                                                                                                                                                                                                                                                                                                                                                                            1881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1401
                                                                                     2361
                                                                                                                              2301
                                                                                                                                                                      2241
                                                                                                                                                                                          2260
                                                                                                                                                                                                               2181
                                                                                                                                                                                                                                                        2121
                                                                                                                                                                                                                                                                              2140
                                                                                                                                                                                                                                                                                                   2061
                                                                                                                                                                                                                                                                                                                                            2001
                                                                                                                                                                                                                                                                                                                                                                2020
                                                                                                                                                                                                                                                                                                                                                                                     1941
                                                                                                                                                                                                                                                                                                                                                                                                         1960
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1780
                                                                                                                                                                                                                                                                                                                      2080
CQ730352
Sequence 16286 1
CQ730352
CQ730352.1 GI:
                                                                                                        AAAA
                                                                                                                                                                                 GTGAGCATGCTCAGTATCATTGTGGAGAACCAAGAGGGCCTCTTAACTGTAACAATGTTC
                                                                                                                                                                                                                           TTTTTTTTTTCTTCCTTTTTAAAAATGGTTGTTTAAGACTTTAACAATGGGAACCCCCTT
                                                                                                                                                                                                                                                                    TTAGTATTTTTCACCATTTGTGAAGAAACATTAAAACAAGTTAAATGGTAGTGTGCGGAG
                                                                                                                                                                                                                                                                                                                                           GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAGGAGGACGTGGAGGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGTGGTGATCGTGGCAGAGGTGGCCCTCGTTGGCATGCGGGGAGGAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACCTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACCTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGGTTGTGATGTTTTTTTTTTTTTTTTAAATAAAATTCCAAATGTTTAATAAAAAAA
                                                                                                                                                                                                                                                          TTAGTATTTTTCACCATTTGTGAAGAAACATTAAAACAAGTTAAATGGTAGTGTGCGGAG
                                                                                                                                                                                                                                                                                                              ATTTATAATTTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                      GTGAGCATGCTCAGTATCATTGTGGAGAACCAAGAGGGCCTCTTAACTGTAACAATGTTC
                                                                                                                                                                                                                TTTTTTTTTTCTTCCTTCTTTTAAAAATGGTTGTTTAAGACTTTAACAATGGGAACCCCTT
                                                                                                                                                                                                                                                                                                   ATTTATAATTCCATATTTATAATGTTGGCCACAACATAATGATTATTCCTTGTCTGTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGATCGTGGTGCTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                       2383
                                                                                     2364
  GI:42303963
                      from
                    2326 bp DNA
Patent WO02068579.
                                  linear
                                  PAT
                                  03-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                       2019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1659
                                                                                                                                                 2379
                                                                                                                                                                                                                                                         2180
                                                                                                                                                                                                                                                                                                   2120
                                                                                                                                                                                                                                                                                                                                           2060
                                                                                                                                                                                                                                                                                                                                                                2079
                                                                                                                                                                                                                                                                                                                                                                                     2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1520
                                                                                                                                                                                          2319
                                                                                                                                                                                                                2240
                                                                                                                                                                                                                                    2259
                                                                                                                                                                                                                                                                                                                       2139
                                                                                                                                                                                                                                                                                                                                                                                                                               1940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1880
                                                                                                                              2360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
                                                                                                                                                            밁
                                                                                                                                                                           Ş
                                                                                                                                                                                                     밁
                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
            S
                                 밁
                                                  8
                                                                         밁
                                                                                         δ
                                                                                                              문
                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                  416
                                                                                                                                                                                                                                                                                                                                  248
                                                                                                                                                                                                                                                                                                                                                      296
                                                                                                                                                                                                                                                                                                                                                                                                                     128
                                                                                                                                                                                                                                                                                                                                                                                                                                         176
             776
                                                                           809
                                                                                              656
                                                                                                                   548
                                                                                                                                       596
                                                                                                                                                             488
                                                                                                                                                                                536
                                                                                                                                                                                                      428
                                                                                                                                                                                                                          476
                                                                                                                                                                                                                                               368
                                                                                                                                                                                                                                                                                                                                                                            188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 116
```

ર્ 밁 S 밁 δ

문

유정 밁 δ 밁 S 밁 S 밁 ঠ 뮍 Ś 밁 ঠ 밁 ş 밁 δ 밁 S 밁 S 밁 ঠ 밁 δ 밁

```
Query Match 95.4%;
Best Local Similarity 99.7%;
Matches 2314; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                Venter, C.J., Adams, M.C., Li, P.W. and Myers, E.W. Kits, such as nucleic acid arrays, comprising a majority of humanexons or transcripts, for detecting expression and other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (human)
Homo sapiens
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent: WO 02068579-A 16286 06-SEP-2002;
PE Corporation (NY) (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCCAACTGCCCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACCACTGCTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTAT
                                                                                                                                                                                                                                                                                                                CCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGA
CAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGT
                                                                                                                                   CAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGT
                                                                                                                                                                                   ACTGCACCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGAT
                                                                                                                                                                                                  ACTGCACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGAT
                                                                                                                                                                                                                                               TATGGACAGAGTAACTACAGTTATCCCCCAGGTACCTGGGAGCTACCCCCATGCAGCCAGTC
                                                                                                                                                                                                                                                                     TATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCCATGCAGCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                 CCAGCCTATGGGCAGCCAGCCAGCAGCCCCTGCACAAGACCGCCAGGATGGAAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                    CCAGCCTATGGGCAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
/mol_type="unassigned DNJ
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Score 2279.2; ; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ω
•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   นธев
                                                                                                                                                                                   607
                                                                                                                                                                                                                                                      547
                                                                                                                                                                                                                                                                                   595
                                                                                                                                                                                                                                                                                                                  487
                                                                                                                                                                                                                                                                                                                                                    535
                                                                                                                                                                                                                                                                                                                                                                                    427
                                                                                                                                                                                                                                                                                                                                                                                                                 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                   367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  115
                                                                                                                    667
                                                                                                                                                                                                                    655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  235
                    835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ω
--
```

2153

2047

2227 2273 2167 2213 2107

2333

2094 1987 1927

1974

2034

```
S
                                                                                                                                                                                                밁
                                                                                                                                                                                                                      ş
                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                  F
                                                                                                                                                                                                                                                                                                                                                                                                                     र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                     밁
                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
        음 &
                                                                                              र्
                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       용
                                      1855
                                                                                                                                                                                                                                                                                             1616
                                                                                                                                                                                                                                                                                                                                                                                                                          1496
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1088
         1808
                                                                                                                                   1688
                                                                                                                                                                                                1628
                                                                                                                                                                                                                                                              1568
                                                                                                                                                                                                                                                                                                                                                                                           1448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       728
      CATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACC
                     CATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACC
                                                                                                                                                   AGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCC
                                                                                                                                                                                                                 GCCCCAAAGCCTGAAGGCTTCCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAG
                                                                                      GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT-CCCTGGTGGCCGGG
                                                                                                                                                                                                                                                            CCCAATCCGGGTTGTGGAAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG
                                                                                                                                                                                                                                                                                  CCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG
                                                                                                                                                                                                                                                                                                                           TCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGT
                                                                                                                                                                                                                                                                                                                                               TCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                         GTCGCATGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                       GGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTGCCGTGGAATGGTTTGATGGGAAAGATTTTTCAAGGGAGCAAACTTAAAGTCTCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTTCCGGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGA
                                                                                                                                 AGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCC
                                                                                                                                                                                               GCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCATGCCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACCCATGGATGAAGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTTCCGGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCTACGGGCAGCAG
                                                                     GGAGACAGAGGTGGCTTCCCGTGGTGGCCGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1267
                                    1914
                                                                                                  1854
                                                                                                                                1747
                                                                                                                                                               1795
                                                                                                                                                                                               1687
                                                                                                                                                                                                                                                            1627
                                                                                                                                                                                                                                                                                            1675
                                                                                                                                                                                                                                                                                                                           1567
                                                                                                                                                                                                                                                                                                                                                           1615
                                                                                                                                                                                                                                                                                                                                                                                         1507
                                                                                                                                                                                                                                                                                                                                                                                                                         1555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1015
                                                                    1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      847
                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 8
CR456490
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                 gene
                                                     SdD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1915
                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (Dases 1 to 2.189)

Collins,J.E., Wright,C.L., Edwards,C.A., Davis,M.P., Grinham,J.A., Cole,C.G., Goward,M.B., Aguado,B., Mallya,M., Mokrab,Y., Huckle,B.J., Beare,D.M. and Dunham,I.

Direct Submission
                                                                                                                                                                                                         The Wellcome Trust Sanger Institute program to isolate cDNA clones representing the full length open reading frame of well annotated protein coding genes on human chromosome 22. For more information see http://www.sanger.ac.uk/HGP/Chr22/.
                                                                                                                                                                                                                                                                                       Submitted (24-MAY-2004) Sanger Institute, Hinxton, Cambridgeshii CB10 1SA, UK. E-mail enquiries: c22g@sanger.ac.uk Manuscript Sanger Institute name: pGEM.EWSR1
Homo sapiens cDNA sequence. This sequence was generated as part
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CR456490.1 GI:47678510 CDNA; chromosome 22; ORF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (cDNA clone
CR456490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTTTTTTTTTTT-AAATAAATTCCAAATGTTTATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTTTTTTTTTAAAATAAAATTCCAAATGTTTAATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TATCATTGTGGAGAACCAAGAGGGCCTCTTAACTGTAACAATGTTCATGGTTGTGATGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCTTTAAAAATGGTTGTTTAAGACTTTTAACAATGGGAACCCCTTGTGAGCATGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTTATAATGTTGGCCACAAC-ATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCATTGACTACCAGATTTATTTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCATTGACTACCAGATTTATTTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGAGACCCCGCAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACCTGGAAAAATGGATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCTTTTAAAAATGGTTGTTTAAGACTTTAACAATGGGAACCCCTTGTGAGCATGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTTATAATGTTGGCCACAACAATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGCGAGCACCGTCAGGAGCGCCAGAGATCGGCCCTACTAGAAGCAGAGACCCCGCAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .6490 mRNA 1 sapiens EWSR1 full length open reading (A clone C22ORF:pGEM.EWSR1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens
/gene="EWSR1"
/codon_start=1
/proteIn_id="CAG30376.1"
                                                                                                                              /mol_type="mRNA"
/db_xref="taxon:9606"
/chromosome="22"
                                                                  /gene="EWSR1"
                                                                                    1. .\overline{2}189
                                                                                                                                                                                                1. .2189
                                                                                                                                                                           'organism="Homo sapiens"
                                                                                                'clone="pGEM.EWSR1"
'lab_host="JM109"
```

linear ng frame

PRI (ORF)

25-MAY-2004 CDNA clone

Cambridgeshire,

e E

2326 2373

900

970

```
Query Match
Best Local Similarity
Matches 2189; Conserv
                                                                                                                                                                                                                                                                  431
                                                                         661
                                                                                             671
                                                                                                                   601
                                                                                                                                                           541
                                                                                                                                                                              551
                                                                                                                                                                                                      481
                                                                                                                                                                                                                           491
                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                              371
                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                      311
                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                         191
                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
            791
                                                  731
                                                                                                                                      611
                                                                                                                                                                                                                                                                                                                                                                                                251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  131
                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ۳
                                                                                                                                                                                                                                                                                        GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                            GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGACGTTGAGAGAACGAGGAGGAAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTAT
GCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGGTTCATTCCGACAG
                                                                         CAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCCACTGAGACTAGT
                                                                                                                                                                                                                                                                                                                                                GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGACGTTGAGAGAACGAGGAAGGAAGAAAATGGCGTCCACGGATTACAGTACCTAT
                                             AGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGCCAA
                                                                                                                 CAGCCAGCAGCCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGT
                                                                                                                                                                                                                                                                                                                                   GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /db_xref="GI:47678511"
/trainslation="MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY
/trainslation="MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY
GQPTDVSYTQAQTTATYGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTT
ATVTTQASYAAQGAYGTQPAYBAYGQQBATAPTRPDCBUKFFETSQPQSSTGGYNQ
PSLGYGQSNYSYPQVPGSYPMQPVTAPPSYPPTSYSTQPTSYDQSSYSQQSSFRQDHFSSNG
SYGQQSSYGQQSPTSYPPQTGSYSQAPSQYSQSSSYGQQSSFRQDHFSSNG
VYGQDSSGYGQDPTSYPPTSYSPTSYSTAGMSRGGRGGRGGGRGGMGAGERGGFUK
PGGPMDEGFDLDLGPPVDPDEDSDNSAITVQGLMDSVTLDDLADFFXQCGVVXMNKXT
GQPMIHIYLDKETGKPKGDATVSYEDPTAKAAVEWFDGKDFQGSKLKVSLARKKPPM
NSMRGGLPREGGMPDFLLRGGFCGGGFGGMGMGGGAGGDRGGFPFPFPGGGTVXMUKGT
GQPMIHIYLDKETGKPKGDATVSYEDPTAKAAVEWFDGKDFQGFKKVSLARKKPPM
NSMRGGLPREGGMPCTNFGGRGGTGGGFGGMGMGGGGGGFRGGFGFPGPL
SGGGNVQHAAGDWGCNPGGGNQNFAMFTECNQCKAFKEEGFLPPFPPFGGBRGRGGF
GGGMRGGRGGGHGKGFRGGTGGBRGGFRGGRGMDRGGFGGGRRGGPGGPPGPL
MEQMGGRRGGRGGFGKMDKGEHRQERRDRPY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     91.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Score 2176; Di
; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2189;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ω
••
                                                                                                                   660
                                                                                                                                        670
                                                                                                                                                              600
                                                                                                                                                                                 610
                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                    490
                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                              430
                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                  310
                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                      S
                                                                                                                                                                                                                음 성
                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                               皮
                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
 밁
               S
                                     밁
                                                           र्
                                                                                   밁
                                                                                                   S
                                                                                                                             片
                                                                                                                                                á
                                                                                                                                                                     皮
                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1091
                     1871
                                                                                                                                                                                                                                                                                                                                                                                        1318
                                                                                                                                                                                                                                                                                                                                                                                                                                  1258
  1858
                                                               1811
                                                                                                                             1678
                                                                                                                                                                        1618
                                                                                                                                                                                                                  1558
                                                                                                                                                                                                                                      1571
                                                                                                                                                                                                                                                                               1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1018
                                                                                                                                                                                             1631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACCACCCCAGTAGCATGGGTTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTĀCAAGGATTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAGGCATGAGCAGAGGTGGGCGGGGAGGACGCGGTGGAATGG---GCGCTGGAGAG
           TTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGGCCCCTGGACCTTTGATGGAACAGATG
                                          GGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGA
                                                                                                                            GGCTTCCTCCCGCCACCCTTTCCGCCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                       GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAA
                                                                                                                                                                                                                 TCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGT
                                                                                                                                                                                                                                                          CGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                 AAAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAG
   TTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGGCCCCCTTGGACCTTTGATGGAACAGATG
```

유용

1870

1917

1810

1690

1497 1570 1557 1557 1630

1750

1437

1377

1317

1450

1030 1017 1090 1077 1150 1137 1210 1197 1257

중 음 중

음 성

음 성

8 8 8 8 8 8

8 8 8 8 8 8 8 8 8 8

```
JOURNAL
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                            REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 9
BC004817
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buctow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S., Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J., McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S., Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W., Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Glbbs, R.A., Fahey, J., Helton, B., Ketteman, M., Madan, A., Rodrigues, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Waers, R.M., Schmerth, A., Schein, J.E., Jones, S.J. and Marra, M.A. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1931
USA

NIH-MGC Project URL: http://mgc.nci.nih.gov

Contact: MGC help desk

Email: cgapbs-remail.nih.gov

Tissue Procurement: ATCC

cDNA Library Preparation: Life Technologies, Inc.

cDNA Library Arrayed by: The I.M.A.G.B. Consortium (LINL)

DNA Sequencing by: Baylor College of Medicine Human Genome

Sequencing Center

Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2182 bp mRNA linear PRI 29-i
Homo sapiens Ewing sarcoma breakpoint region 1, transcript v
EWS, mRNA (cDNA clone MGC:5432 IMAGE:3449145), complete cds.
BC004817
BC004817.1 GI:13435962
                                                                                                                                                                                                                                                                               Submitted (21-MAR-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo
                                                                                                                                                                                                                                                                                                                                                                                                     Strausberg, R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                           Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGTGAAGAACAT 2170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGAGCCTGCATTGACTACCAGA 2050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAGGAAGAAGAAGAAGGACGTGGAAGAACTGGATAAAGGCGAGCACCGTCAG 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAAAACAAGTTAAATGGTAGTGTGCGGAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAACATTAIGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGTGAAGAACAT 2157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTATTTTTAAACCAGAAAATGTTTTAAAATTTTATAATTCCATATTTATAATGTTGGCCA 2110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCGCAGAGATCGGCCCTACTÁGATGCAGAGACCCCCGCAGAGCTGCATTGACTÁCCAGA 2037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAGGAAGAAGAGGACGTGGAGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAG 1977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATAATGTTGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (bases 1 to 2182)
                                                                                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 2182)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRI 29-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              variant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2097
```

片

181

241

GGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCC

300 324 240 밁 S 밁 ঠ 밁 श् 밁 र् 밁 S

```
Ś
             Ś
                                                                문
                                                                                                                                                                     용
                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                              Matcheв 2165;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SdO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                  121
                                                                                                                   145
                                                                                                                                                                     61
                                                                                                                                                                                                                      85 GCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCA
                                                                                                                                                                                                                                                                                                                              25
                                                                                                                                                                                                                                                                         _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Clone distribution: MGC clone distribution information can be 1 through the I.M.A.G.E. Consortium/LiNi at: http://image.llnl.gc Series: IRAK Plate: 3 Row: 1 Column: 6 This clone was selected for full length sequencing because it passed the following selection criteria: Hexamer frequency ORF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Loulseged,
Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati,
A.N., Gibbs; R.A.
                                                                                                        GGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCA
                                                                GGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCA
GGCTCAGACCCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCC
                                                                                                                                                                     GCAGCAGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCA
                                                                                                                                                                                                                                                                         CGAGGAGGAAGAAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGC
                                                                                                                                                                                                                                                                                                      CGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGC
                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /gene="EWSR1"
/codon_start=1
/codon_start=1
/product="Ewing sarcoma breakpoint region 1, isoform EWS"
/protein_id="AHH04817.1"
/protein_id="AHH04817.1"
/db_xref="GI:13435963"
/db_xref="LocusII:23450"
/db_xref="LocusII:23450"
/db_xref="MIM:133450"
/db_xref="MIM:133450"
/db_xref="MIM:133450"
/db_xref="MIM:133450"
/translation="MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY
GOPTDVSYTQAQTAYTGYGPAYPAYGQOPTGYTTPTAPQDGNKPTGTSQPOSSTGGNQ
GOPTDVSYTQAQSAYGTQPAYPAYGQAPATAPTRPQDGNKPTGTSQPOSSTGGNQ
PSLGYGQSNYSYPQVPGSYPMAYPAYGQPAATAPTRPQDGNKPTGTSQPOSSTGGNQ
PSLGYGQSSYGQQSSYGQQPTSYPPQTGSYSQAPSQYSQSSSYGQQSSFRQDHPSSMG
VYGQDSSYGQQSSYGQQSSYGQDNTGRGGGTNGGGTGGGGTGGGGTNGAGGTN
KPGGPMDEGGPDLDLGFPVDFDEBSDNSAITYQGLNSVTLDDLADFFKQGGVVKMKR
TGQPMIHIYLDKETGKPKGDATVSYEDPTAKAAVEWPDGKDFQSSKLKVSLARKKPP
MNSNEGGLPPREGRGMPPPLRGFGGGFGGGGGMGRMGGGFPPRGGFRGSRGN
MNSNEGGLPPREGRGMPPPLRGFGGGFGGGGGMGRMGGGFPPRGGFRGSRGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPFFPPGGDRGRG
GPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGGPPGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="MIM:133450"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="synonym: EWS"
/db_xref="LocusID:2130"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene="EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         note="Vector:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /tissue_type="Placenta,
/clone_lib="NIH_MGC_10"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol_type="mRNA"
/db xref="taxon:9606"
/clone="MGC:5432 IMAGE:3449145"
/clone="MGC:5432 IMAGE:3449145"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                 90.6%;
                                                                                                                                                                                                                                                                                                                                                                            Score 2165; Di
; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                            ç,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       choriocarcinoma"
                                                                                                                                                                                                                                                                                                                                                                                                                              DB
                                                                                                                                                                                                                                                                                                                                                                                                                              9;
                                                                                                                                                                                                                                                                                                                                                                            <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                              Length 2182;
                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     information can be for http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                            Gaps
                264
                                                                180
                                                                                                                   204
                                                                                                                                                                     120
                                                                                                                                                                                                                   144
                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ξ;
                                                                                                                                                                                                                                                                                                                                                                            0
```

음 성

ફ

음 중 8 음 성 밁 S

1165 AGATGATCTGCCAGACTTCTTTAAGCAGTGGGTTGTTAAGATGAACAAGAGAACTGG 1224 1141 AGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAAAACTGG 1200 11225 GCAACCCATGATCCACATCTACCTGGACAAGGGGTTGTTAAGATGAACAAGAACAGGAACTGG 1200 1226 GCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCCAAAGGCCAACCCACCA	325 CACTGGTGCTTATGATACCACCACTGCTACACTCACCACCACCACGGCCTCCTATGCAGC 384 301 CACTGGTGCTTATGATACCACCACTGCTACAGCTCACCACCACCACCACCACCCCAGGCCTCCTATGCAGC 384 385 TCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAGCAGCAGCACCACCACCACCACCACCACCACCACC
RESULT 10 BC072442 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS	8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6
BC072442 BC072442 BC072442 BC072442 N EWS, mRNA (CDNA clone MGC:87992 IMAGE:6047805), complete cds. BC072442 B	

S

뭥 ঠ 밁

충 음 충

음 성 음

146 AGGAGGCCCAGGAGGTCCTCGGGGGAGCCATGGGAGCCATGGCAGCACTCCTTGGAGGAGCCCAGGAGGACTATGCGATGGATG
CCACCCGG GGTCCTGGG GGTCCTGGG GGTCCTGGG GGTCCAAGAGA CCAAGAGAA CCAAGAGAA CCAAGAGAA CCAAGAGAA CCAAGAGAA CCAAGAGAA CCAAGAGAA CCAGGGTGGA CCGGGTGGT CCGGAAAA CCGGGAAAA CCGGGAAAAA CCGGGAAAAA CCGGGAAAAA CCGGGAAAAA CCGGGAAAAA CCGGGAAAAA CCGGGAAAAA CCGGGAAAAA CCGGGAAAAA CCGGAAAAAA CCGGGAAAAA CCGGAAAAAA CCGGAAAAAAA CCGGAAAAAA CCGGAAAAAA CCGGAAAAAAA CCGGAAAAAAA CCGGAAAAAA CCGGAAAAA CCGAAAAAAAA

S 밁 ફ 음 성 음

8 8 8

뭥

8 8 8

음 성

음 성

```
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                              gene
                                                                                                                                                                                                                                 Sgo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Mational Institutes of Health Intramural
DNA Sequencing by: Mational Institutes of Health Intramural
Sequencing Center (NISC),
Gaithersburg, Maryland;
Web site: http://www.nisc.nih.gov/
Contact: nisc_mgc@nhgri.nih.gov/
Akhter,N., Ayele,K., Becketrom-Sternberg,S.M., Benjamin,B.,
Akhter,N., Ayele,K., Becketrom-Sternberg,S.M., Benjamin,B.,
Blakesley,R.W., Bouffard,G.G., Breen,K., Brinkley,C., Brooks,S.,
Blakesley,R.W., Bouffard,G.G., Breen,K., Buthalo,P., Legaspi,R.,
Hansen,N., Ho,S.-L., Karlins,E., Kwong,P., Lario,P., Legaspi,R.,
Maduro,Q.L., Masiello,C., Maskeri,B., Mastrians,D.J., Touchman,J.W.,
Tgurgeon,C., Vogt,J.L., Walker,M.A., Wetherby,K.D., Wiggins,L.,
Young a. Zhang I., H. and Green, E. M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S., Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J., McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S., Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W., Villalon, D.K., Muzny, D.M., Sodergren, B.J., Lu, X., Gibbs, R.A., Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M., Butterfield, Y.S., Krzyvinski, M.I., Skalska, U., Smailus, D.E., Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A. Generation and initial analysis of more than 15,000 full-length buman and mouse cDNA accusers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Clone distribution: MGC clone distribution information can be foun through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 174 Row: g Column: 18
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 4885224.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (01-JUN-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tissue Procurement: ATCC/DCTD/DTP CDNA Library Preparation: Life Te
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Strausberg, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 2164)
/codon_start=1
/product="Ewing sarcoma breakpoint region 1, isoform EWS"
/protein_ide"AAH72442.1"
/db_xref="GI:48734727"
/db_xref="LocusID:2130"
                                                                                                                                                                                                                                                        /gene="EWSR1"
/note="synonym: EWS"
/db_xref="LocusID:2130"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /lab
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="Vector:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone="MGC:87992 IMAGE:6047805"
/tl88ue_type="Skin, melanotic me
/clone_tib="NHH_MGC_72"
                                                                                                                                                                                               gene="EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zhang, L.-H. and Green, E.D.
                                                                                                                                                                                                                                                                   xref="MIM:133450"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                    pCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             melanoma."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             be found
```

MEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"

ORIGIN

Matches 2149;

Conservative

Query Match Best Local Similarity

89.4%;

Score 2136; Pred. No. 0

DB 9

Length Indels

δ 밁 Ś 멼 á 밁 5 밁 S 片 Ş 밁 S 밁 S 밁 S Ś 밁 문 5 문 Ś 밁 S 문 818 661 869 601 638 541 481 518 361 758 421 458 398 301 338 241 278 181 218 121 CANAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACT 2 86 38 μ. TACCCCATGCAGCCAGTCACTGCACCTCCTACCACCCTACCAGCTATTCCTCTACA AGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCCAGTAGCATGGGTGTTTAT AGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCAGCCTCCCACT AGTTACCCACCCCAAACTGGATCCTACAGCCCAAGCTCCAAGTCAATATAGCCAACAGAGC AGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCCACCTCCCACT CAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGC CAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGC TACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTACCAGCTATTCCTCTACA **AACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCCAGGTACCTGGGAGC** AACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCCAGGTACCTGGGAGC CCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGGTTAC GATACCACCACTGCTACAGTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATAT GATACCACCACTGCTACAGTCACCACCACCACGCCTCCTATGCAGCTCAGTCTGCATAT ACTCCAACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTAT ACTCCAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTAT GCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACT CAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCCAGGCTCAGACCACT AGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAA GAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGCAGCTAC GAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCCAGCAGGGCTAC 97 AGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTAT AGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAA 0; Mismatches <u>,</u> ω --Gaps 157 877 780 600 420 457 720 757 660 697 637 540 577 480 517 360 397 300 337 277 180 217 60 240

ঠ

음 성 멍 유 성 유

Ş 밁 ð

음 성 음

S 문 8 밁

रु 🖁 र

밁 ð 8 8 8 8 8 8

ち 음 ち

음 성 음 성

JOURNAL PUBMED REFERENCE AUTHORS	TITLE		VERSTON VERSTON KEYWORDS SOURCE ORGANISM ORGANISM REFERENCE AUTHORS	RESULT 11 AXO56309 LOCUS DEFINITION	Qy 2:	Qy 20	Qy 20	Qy 15
Nat. Genet. 36 (1), 40-45 (2004) 14702039 2 Ishibashi, T., Kanehori, K., Yosida, M., Watanabe, S., Ishida, S., Ono, Y., Hotuta, T., Hiraoka, S., Murakawa, K., Takiguchi, S., Ono, Y., Watanabe, M., Fujimori, K., Tanai, H., Ishida, M., Yamashita, H., Chiba, Y., Sugiyama, T., Irie, R., Otenuki, T., Sato, H., Wakamatsu, A., Ishii, S., Yamamoto, J., Iroe, R., Otenuki, T., Sato, H., Wakamatsu, A., Nishikawa, T., Kimura, K., Matsuo, K., Nakamura, Y., Saito, K., Nishikawa, T., Kimura, K., Magatsuma, M., Takahashi-Fujii, A., Sekine, M., Kikuchi, H., Kanda, K., Wagatsuma, M., Takahashi-Fujii, A., Oshima, A., Sugiyama, A., Kawakami, B., Suzuki, Y., Sugano, S., Nagahari, K., Masuho, Y., Nagai, K., and Isogai, T.	a, H., Trandse, T., Nomura euchi, K., Arita, M., Imo, ohata, N., Sano, S., Mori- nabima, Y., Szzuki, O., N. ashima, Y., Shimizu, F., Wakeb iyama, A., Takemoto, M., o, Y., Shimizu, F., Wakeb iyama, A., Takemoto, M., agai, A., Itakura, S., Fu hiro, H., Tanigami, A., F hiro, H., Tanigami, A., F hiro, H., Hirao, M., Ohnori gaki, H., Ikema, Y., Okam uchi, S., Itoh, T., Shige ajima, Y., Mizuno, T., Matanab oh, T., Shirai, Y., Takah ase, T., Nomura, N., Kin, plete sequencing and ch an cDNAs	Wakamatsu,A., Hayashi,K., Sato,H., Nagai,K., Kimura,K., Makita,H., Sekine,M., Obayashi,M., Nishi,T., Shibahara,T., Tanaka,T., Ishii,S., Yamamoto,J., Saito,K., Kawai,Y., Isono,Y., Nakamura,Y., Nagahari,K., Yamada,K., Yasuda,T., Iwayanagi,T., Wagatsuma,M., Shiratori,A., Sudo,H., Hosoiri,T., Kaku,Y., Kodaira,H., Kondo,H., Shiratori,A., Sudo,H., Hosoiri,T., Kaku,Y., Kodaira,H., Kondo,H., Shirata,M., Takahashi,M., Kanda,K., Yokoi,T., Furuya,T., Sugawara,M., Takahashi,M., Kanda,K., Yokoi,T., Furuya,T., Kikkawa,E., Omura,Y., Abe,K., Kamihara,K., Katsuta,N., Sato,K., Tanikawa,M., Yamazaki,M., Ninomiya,K., Ishibashi,T., Yamashita,H., Murakawa,K., Pujimori,K., Tanai,H., Kimata,M., Watanabe,M., Hiraoka,S., Chiba,Y., Ishida,S., Ono,Y., Takiguchi,S., Watanabe,S., Yosida,M., Hotuta,T., Kusano,J., Kanehori,K., Takahashi-Fujii,A.,	9.1 GI:16551673 apping; fis (full insert plens (human) plens ta; Metazoa; Chordata; Cr; ta; Metazoa; Primates; Ca; suzuki Y., Nishikawa,T.,	AK056309 2189 bp mRNA linear PRI 30-JAN-2004 Homo sapiens cDNA FLJ31747 fis, clone NT2RI2007377, highly similar to RNA-BINDING PROTEIN EWS.	138 CTTTAGTATTTTTCACCATTTGTGAAGAAGATTAAAACAAGTTAAATGGTA 2189 	078 AAATTTATAATTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGTCTGTA 2137 	2018 CAGAGACCCCGCAGAGCTGCATTGACTACCAGATTTATTT	1958 CCTGGAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATG 2017

```
TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
               S
                                           문
                                                                १
                                                                                                  밁
                                                                                                                    र्
                                                                                                                                                   뭥
                                                                                                                                                                          ર્
                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 2164; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bource
                  305
                                           241
                                                                      263
                                                                                                  181
                                                                                                                          203
                                                                                                                                                     121
                                                                                                                                                                                 143
                                                                                                                                                                                                            13
                                                                                                                                                                                                                                      83
                                                                                                                                                                                                                                                                                             23
                                                                                                                                                                                                                                                                  _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (24-OCT-2001) Takao Isogai, Helix Research Institute, Genomics Laboratory; 1532-3 Yana, Kisarazu, Chiba 292-0812, Japan (E-mail:genomics@hri.co.jp, Tel:81-438-52-3975, Fax:81-438-52-3986) NEDO human cDNA sequencing project supported by Ministry of Economy, Trade and Industry of Japan; cDNA full insert sequencing: Research Association for Biotechnology (RAB); cDNA library construction: Helix Research Institute (HRI) (supported by Japan Key Technology Center etc.); 5'- & 3'-end one pass sequencing: RAB, HRI, and Biotechnology Center, National Institute of Technology and Evaluation; clone selection for full insert sequencing: RAB and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 (bases 1 to 2189)
Isogai, T., Otsuki, T. and Sugiyama, T.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished
CAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACC
                                                                                                                                                   GCGCAGCAGGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCC
                                                                                                                                                                                                                                                                                 AACGAGGAGGAAGGAGAAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCA
                                         CCCACTGTAGAAGGGACCAGTACAGGTTATACTACTCCAACTGCCCCCCAGGCATACAGC
                                                                                                                                                                                                                                                                AACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCA
                                                                        CCCACT-----
                                                                                                                          CAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCT
                                                                                                                                                                                                            GCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human cDNA sequencing
                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                      /note="cloning vector: pME18SFL3-mRNA from NT2 neuronal precursor cells treated 2-weeks mitotic inhibitor after 5-weeks retinoic acid (RA) induction.-majorly NT2 neuro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="unnamed protein product"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="NTZRI2007377"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /cell_type="teratocarcinoma"
/clone_lib="NT2RI2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                  99.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Line="NT2"
                                                                   -----GGTTATACTACTCCAACTGCCCCCAGGCATACAGC
                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                    Score 2123;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           project
                                                                                                                                                                                                                                                                                                                                                 DB
                                                                                                                                                                                                                                                                                                                                                 9;
                                                                                                                                                                                                                                                                                                                     <u>,</u>
                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                  2189;
                                                                                                                                                                                                                                                                                                                     21;
                                                                      304
                                           300
                                                                                                240
                                                                                                                          262
                                                                                                                                                     180
                                                                                                                                                                                                           120
                                                                                                                                                                                                                                      142
                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                     2
                    S
                                                                            S
                                                                                                                                 Ś
                                                                                                                                                                 밁
                                                                                                                                                                                    δ
                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                      밁
                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                              멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                             1078
                                                                                                             1258
                                                                                                                                                                                            1205
                                                                                                                                                                                                                                                   1145
                                                      1318
                                                                                                                                                                                                                                                                                                        1085
                                                                                                                                                                                                                                                                                                                                    1018
                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                                                     965
                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 CAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACC 360
               AAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCA
                                                                      GAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAG
                                                                                                                             AAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGA
                                                                                                                                                                                                                      CTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGA
                                                                                                                                                                                                                                                                                                        CTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGA
                                                                                                                                                                                                                                                                                                                                                    GGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                          GATCGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGAGGACGCGGTGGAATGGGCAGCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGAGGGGGATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGACAGGACCACCCCAGTAGCATGGGTGTTTTATGGGCAGGAGTCTGGAGGATTTTCCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGCAGCAGCAGCCAGCTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTAT
                                                        GAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAG
                                                                                                              AAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGA
                                                                                                                                                                                                                                                                                                                                                                                         CCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGCAGCAGCCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCATCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCT
                           1444
                                                      1377
                                                                                                                                       1324
                                                                                                                                                                                           1264
                                                                                                                                                                                                                                                   1204
                                                                                                                                                                                                                                                                             1137
                                                                                                                                                                                                                                                                                                       1144
                                                                                                                                                                                                                                                                                                                                                               1084
                                                                                  1384
                                                                                                             1317
                                                                                                                                                                  1257
                                                                                                                                                                                                                        1197
                                                                                                                                                                                                                                                                                                                                    1077
                                                                                                                                                                                                                                                                                                                                                                                         1017
                                                                                                                                                                                                                                                                                                                                                                                                                     1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          484
```

```
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                         VERSION
KEYWORDS
SOURCE
 REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                     LOCUS
DEFINITION
                                                                                                                                                                                                                                                                 RESULT 12
AC137500/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                               2165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1505
                                                                                                                                                                                                                                                                                                                                  2158
                                                                                                                                                                                                                                                                                                                                                                                                2098
                                                                                                                                                                                                                                                                                                                                                                                                                            2105
                                                                                                                                                                                                                                                                                                                                                                                                                                                          2038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1685
2 (bases 1 to 193559)
DOB Joint Genome Institute
Direct Submission
                                                                                                                                                       AC137500 193559 bp DNA linear HTG 20-NOV-2002 Homo segiens chromosome 16 clone RP11-343G17, WORKING DRAFT SEQUENCE, 2 unordered pieces.
AC137500 AC137500.1 GI:25139894 HTGS_HTGS_PHASE1; HTGS_DRAFT; HTGS_ACTIVEFIN.
Homo sapiens (human)
                                                                            Eukaryota; Metazoa; Chordata;
Mammalla; Eutheria; Primates;
1 (Dases 1 to 19359)
DOE Joint Genome Institute.
                                                                                                                                             Homo sapiens
                                                             Sequencing of Human Chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGATGGGAGGAAGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCAC 1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAA 1924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGGCATGGACCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGG
                                                                                                                                                                                                                                                                                                                                  AMACATTAMAACAAGTTAMATGGTA 2182
                                                                                                                                                                                                                                                                                                                                                     AAACATTAAAACAAGTTAAATGGTA 2189
                                                                                                                                                                                                                                                                                                                                                                                              TGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCAGATTTATTTTAAACCAGAAAAIGTTTTAAAATTTATAATTCCATATTTATAAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGAGCTGCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGATGGGAGGAAGAAGAGGAGGACGTGGAAAAAATGGATAAAGGCGAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGATGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCTGGTGGCATGCGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ccreaaeecrrccrccccccccrrrcceccccceerrerarcerecaeaeereec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCCAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACCCCTCTGGAGGAAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AACCCCTCTGGAGGAGAGACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCG
                                                                                                                                                                                                                                                                                                                                                                                                                   TGGCCACAACATTATGATTATTCCTTGTCTGTACTTTTAGTATTTTTCACCATTTTGTGAAG
                                                                                                           Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                               16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1624
                                                                                                                                                                                                                                                                                                                                                                                                                             2164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1504
                                                                                                                                                                                                                                                                                                                                                                                                2157
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1617
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                              δ
                                                                                                                                  밁
                                                                                                                                                                       Ş
                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    片
                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 2106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                  30744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31044 GATGGGGACGTTGAGAGAACGAGGAGGAGGAGGAGAAAATGGCATCCATGGATTACAGTA
                                                                                                                                                                                                                          30804
                                                                                                                                                                                                                                                                                                                30864 TIGATGICAGCTATACCCAGGCTCAGACCACTGCAATCTATGGGCAGACCGCCTATGCAA
                                                                                                                                                                                                                                                                                                                                                                                                      30924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30984
                                                                                                                                                                                                                                                                                                                                                                                                                                                  126
                                                                                                                                                                                                                                                                      246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Quality coverage: 12.34 in Q20 bases; agarose-fp estimation Quality coverage: 10.21 in Q20 bases; sum-of-contigs estimation.

* NOTE: This is a 'working draft' sequence. It currently consists of 2 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Consensus quality: 192718 bases at least Q40 Consensus quality: 192915 bases at least Q30 Consensus quality: 193071 bases at least Q20 Estimated insert size: 160000; agarose-fp estimation Estimated insert size: 193459; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Center Project Name: 538238
Center clone name: RPCI-11_343G17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----Genome Center
Center: Joint Genome Institute
Center Code: JGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (20-NOV-2002) Production Sequencing Facility, DOE Joint Genome Institute, 2800 Mitchell Drive, Walnut Creek, CA 94598, USJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Web site: http://www.jgi.doe.gov
GGCAGCAGCCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGA 485
                                                                   CCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATG
                                                                                                                                  AGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCA
                                                                                                                                                             AGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCA
                                                                                                                                                                                                                          CTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCC
                                                                                                                                                                                                                                               CTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCC
                                                                                                                                                                                                                                                                                                                                              CTGATGTCAGCTATACCCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAA
                                                                                                                                                                                                                                                                                                                                                                                                      GATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                    GATATGCACAGACCCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACAACACCCAGCCCACTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGACGGACGTTGAGAGAACGAGGAGGAGGAGAAAATGGCGTCCACGGATTACAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .193559
/organism="Homo sapiens"
/mol_type="genomic_DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 96955: contig of 96955 bp in length
6 97055: gap of unknown length
6 193559: contig of 96504 bp in length
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone="RP11-343G17"
/clone_lib="RPCI human BAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 2038.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Length 193559;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        USA
                                                                                                                                                                                365
                                                                                                                                                                                                                                                                      305
                                                                                                                                                                                                                                                                                                                                                              245
                                                                                                                                                                                                                                                                                                                                                                                                                                                    185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                65
                                                                                                                                                                                                                          30745
                                                                                                                                                                                                                                                                                                                  30805
                                                                                                                                                                                                                                                                                                                                                                                                        30865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N
```

1506	1446 29604	1386 29664	1326 29724	1266 29784	1206 29844	1146 29904	1086 29964	1026	966 30084	906 30144	846 30204	786 30264	726 30324	666 30384	606 30444	546 30504	486 30564	30624
GAGGCCGTGGAGGAGATAGAGGAGGCTTC	CACCACTCCGTGGAGGTCCAGGAGGCCCA	AGCCTCCAATGAACAGTATGCGGGGTGGT 	AATGGTTTGATGGGAAAGATTTTCAAGG	AGCCCAAAGGCGATGCCACAGTGTCCTAT	AGATGAACAAGAGAACTGGGCAACCCATG	TAAATGACAGTGTGACTCTAGATGATCTG	TAGGCCCACCTGTAGATCCAGATGAAGAC	GAGAGCGAGGTGGCTTCAATAAGCCTGGT 	ATCGTGGAGGCATGAGCAGAGGTGGGCGG	CAGGAGAGAACCCGGAGCATGAGTGGCCCT	GACAGGACCACCCCAGTAGCATGGGTGTT	GCCAAGCTCCAAGTCAATATAGCCAACAG GCCAAGCTCCAAGTCAGTATAGCTAACAG	AACAAAGCAGCTATGGGCAGCAGCCTCCC	ACTCTCAGCAGAACACCTATGGGCAACCG	CATCCTACCCTCCTACCAGCTATTCCTCT	GTAACTACAGTTATCCCCAGGTACCTGGG	CTAGTCAACCTCAATCTAGCACAGGGGGT	
GAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCGAGGGA	CACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGG	AGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCAC	AATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGA 	AGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCACCC	AGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAA	TADATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTA	TAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGAT	GAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATC	ATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTG	CAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGGAGGGGAAGAGAGGGGGATTTG	GACAGGACCACCCCAGTAGCATGGGTTTTATGGGCAGGAGTCTGGAGGATTTTCCGGAC	GCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCC	AACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCACCC	ACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGATAGCTATGGTC	CATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTT	GTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTC	CTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGA 5	
1565	1505 29545	29605	. 1385	1325	1265	1205	29905	29965	1025	30085	30145	30205	785 30265	: 725 : 30325	30385	30445	30505	30565
	•		-		· · · · · · · · · · · · · · · · · · ·							· · · · · · · · · · · · · · · · · · ·						

ঠ 🖁 ঠ

음 성 음

8 8 8 8

8 B 8

밁

ঠ 🔓 ঠ

밁

& &

8 8 8 8 8

B & B & B & B & B & B & B

RESULT 13 ACO18774 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
ACO18774 ACO187	29544 GAGGCCGTTGGAGGATATAGAGGAGGCCTCCCTCCAAGAGGACCCCAGGGTTCCCCAAGGGACCCAAGGGACCCAAGGGATTCCCGAAGGGACCAAACCCAAACCTCTGGAAGACCACCAAGCTTGGACCAACCCAAACCCCAAACCCAAACCTCTGGACGAAACCAAAACCACAACCTCTGGCCTGAAAACAAAC

```
Ś
                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
                                                                                Query Match
Best Local Similarity
Matches 2103; Conserv
                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           * NOTE: This is a 'working draft' sequence. It currently consists of 3 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence may soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (19-DEC-1999) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On Feb 28, 2000 this sequence version replaced gi:6692312. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Macdonald, P., Marquis, N., McEwan, P., McGurk, A., McKernan, K., Meldrim, J., Meneus, L., Morrow, J., Naylor, J., Norman, C.H., O'Connor, T., O'Donnell, P., Olivar, T.M., Peterson, K., Pierre, N., Pisani, C., Pollara, V., Raymond, C., Riley, R., Rothman, D., Roy, A., Santos, R., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Tirrell, A., Vassillev, H., Viel, R., Vo, A., Wu, X., Wyman, D., Ye, W.J., Zimmer, A.
6 GAGACGGACGTTGAGAGAAGGAGGAGGAGGAGAAAATGGCGTCCACGGATTACAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    http://ftp.genome.washington.edu/RM/RepeatMasker.html
----- Genome Center
Center: Whitehead Institute/ MIT Center for Genome Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: sequence submissions@genome.wi.mit.edu

Center project name: L3897

Center project name: L3897

Center clone name: 20 G 3

Sequencing vector: M13; M77815; 100% of reads
Chemistry: Dye-terminator Big Dye; 100% of reads
Assembly program: Phrap; version 0.960731

Consensus quality: 153118 bases at least Q40
Consensus quality: 153118 bases at least Q20
Insert size: 155015; sum-of-contigs
Quality coverage: 5.1 in Q20 bases; sgarose-fp
Quality coverage: 5.2 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Web site: http://www-seq.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center code: WIBR
                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6053
6153
                                                                                                                                                                                                                                                                                                  vector_side:left"
23234. ... 155815
                                                                                                                                                                                                                                                                                                                                                                                                            /note="assembly_fragment"
6153. .23133
                                                                                                                                                                                                              vector_side:right"
                                                                                                                                                                                                                                             clone_end:T7
                                                                                                                                                                                                                                                                                                                                                          clone_end:SP6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                      note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                           note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          clone_lib="RPCI-11 Human Male BAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         clone="RP11-20G3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .155815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6052: contig of 6052 bp in length
6152: gap of 100 bp
23133: contig of 16981 bp in length
23233: gap of 100 bp
155815: contig of 132582 bp in length.
                                                                                                          85.1%;
96.3%;
                                                                                   .
•
                                                                                                          Score 2033.6;
Pred. No. 0;
                                                                                      Mismatches
                                                                                                                                      DB 2;
                                                                              79;
                                                                                      Indels
                                                                                                                                      Length 155815;
                                                                                2; Gaps
                                 გ
```

S

유

당. 왕

```
12267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1626
                                                                            AACATTAAAACAAGTTAAATGGTA 2189
                                                                                                                                                                                          GGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGTGAAGA
                                                                                                                                                                                                                                                                                                           CCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTTATAATTTCCATATTTTATAATGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGAGCTGCATTGACTA
                                                                                                                                                                                                                                                                                                                                                                                                 GTCAGGAGCGCAGAGATCAGCCCTACTAGATGCAGAGAACCCGCAGAGCTGCATTGACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAATGGGAGGAAGAAGAGGACGTGAAGGACCTGGAAAAAACGGATAAAGGCGAGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGATGGGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACC 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGGCTTTGGTGGAGGAAGACAAGGTGGCCCTGGGGGGCCCCC-GGACCTTTGATGTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCCCTCTGGAGGAGGAAACGTCCAGCACCCGAGCTGGAGACTGGCAGTGTCCCAATCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGGCCGTGGAGGAGATAGAGGAGGCCTCCCTCCAAGAGGACCCCAGGGTTCCCGAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGGTTTGATGGGAAAGTTTTCAAGGGAGCAAACTTAAAGTCTCTCTTTGCTCGGAAGA
                                                                                                                                                                                                                                                                                CCAGATTTATTTTTAAACCAGAAATGTTTTAAATTTATAATTCCATATTTATAATGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGAGGTGGCTGTGGTAGAGACAGAAGTGGCTTCTGTGGTGG-CTGGGCATGGACCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGGTGGCATGTGGGAGGAAGAGGTGGCCTCATGGATCATGGTGGTCCCGGTGGAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGAGCAACAAGTGTAAGGCTCCAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACACCTCTGGAGGAGAAACGTCCAGCACCAAGCTGGAGACAGGCAGTGTCCCAATCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCCGAGGGA 1565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACCACTCTGCGGAGGTCCAGGAGGCCCAGGAAGTCCTGGGGGGACCCATGGGTCACATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAAGGGCATGCCAC 1445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAAATGACAATGTGACTCTAGATGATCTGGTAGACTTCTTTAAGCAGTGTGGGGGTTGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTA 1205
                                                                                                                                                               GGCCACAACATTATGATTATTCTTTCTCTGTACTTTAGTATTTTTCACCATTTGTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCCCAAAGGTGATGCCACAGTGTCCTGTGAAGACTCACCTACTGCCAAAGCTGCCGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                        2045
                                                                                                                                                                                                                   2165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1325
                                                                                                                                                               1250
                                                                                                                                                                                                                                                                                                                                       2105
                                                                                                                                                                                                                                                                                                                                                                                                 12386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1385
                                                                                                                                                                                                                                                                             12446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 14
AL596087/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                              misc_feature
                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AL Submitted (10-MAR-2002) Wellcome Trust Sanger Institute, Hinxton, Cambridgeshire, CB10 1SA, UK. B-mail enquiries: humquery@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk On Mar 11, 2002 this sequence version replaced gi:16944185. During sequence assembly data is compared from overlapping clones. Where differences are found these are annotated as variations together with a note of the overlapping clone name. Note that the variation annotation may not be found in the sequence submission corresponding to the overlapping clone, as we submit sequences with only a small overlap as described above.

This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest. The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases: Em. EMBL; Sw:, SWISSPROT; Tr., TREWBL; Wp:, WORMPEP; Information on the WORMPEP and the problems of the subclone o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                http://www.sanger.ac.uk/Projects/C_elegans/wormpep This sequence was generated from part of bacterial clone contigs of human chromosome 1 constructed by the Sanger Centre Chromosome 1 Mapping Group. Further information can be found at http://www.sanger.ac.uk/HGP/Chr1
RP11-9118 is from the library RPCI-11.1 constructed by the group of Pieter de Jong. For further details see
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This sequence is the entire insert of clone RP11-9118 The true left end of clone RP11-479J7 is at 136234 in this sequence. The true right end of clone RP11-375H19 is at 73742 in this sequence.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      http://www.chori.org/bacpac/home.htm
VECTOR: pBACe3.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sequence.
AL596087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1. (bases 1 to 180718)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Almeida,J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human DNA
sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. .180718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone="RP11-9L18"
/clone_lib="RPCI-11.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence from clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                        .23229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bp DNA ....e RP11-9L18 on chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRI 10-MAR-2002
ne 1, complete
```

8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

ঠ

밁

8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

밁

ORIGIN ORIGIN Que Reset Reset Que Reset
DOUBLY MATCH SIMILARITY 56.31; Shore 2033.6; DB 9; Length 180718; BBST LOCAL SIMILARITY 56.31; Fred. No. 0; Mismatches 79; Indels 2; Gape 2; MATCHES 2103; Conservative 0; Mismatches 79; Indels 2; Gape 2; Gape 2; MATCHES 2103; Conservative 0; Mismatches 79; Indels 2; Gape 2
B
1026 GAGIGGAGGTGGCTTCANTAGCCTGGTGGACCCATTGATTGATCAACCTTCATC 1085 116

```
Birren, B., Linton, L., Nusbaum, C., Lander, E., Allen, N., Anderson, M., Baldwin, J., Barna, N., Beckerly, R., Boguslavkiy, L., Boukhgalter, B., Brown, A., Castle, A., Colangelo, M., Collins, S., Collymore, A., Cooke, P., Derkellano, K., Dewar, K., Domino, M., Donelan, L., Doyle, M., Ferreira, P., Fitzhugh, W., Forrest, C., Funke, R., Gage, D., Galagan, J., Gardyna, S., Grant, G., Hagos, B., Hestord, A., Horton, L., Howland, J.C., Johnson, R., Jones, C., Kann, L., Karatas, A., Klein, J., Lehoczky, J., Lieu, C., Locke, K., Macdonald, P., Marquis, N., McEwan, P., McGurk, A., McKernan, K., McLaughlin, J., Meldrim, J., Morrow, J., Naylor, J., Norman, C.H., O'Connor, T., O'Donnell, P., Peterson, K., Pollara, V., Riley, R., Roy, A., Santos, R., Severy, P., Stange-Thomann, N., Stojanovic, N., Subramanian, A., Talamas, J., Tesfaye, S., Tirrell, A., Vassillev, H., Vo, A., Wheeler, J., Wu, X., Wyman, D., Ye, W. J., Zimmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (03-OCT-1999) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On Sep 4, 2000 this sequence version replaced gi:7341864. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
* arbitrary. Gaps between the contigs are represented as * runs of N, but the exact sizes of the gaps are unknown. * This record will be updated with the finished sequence
                                                        * NOTE: This is a 'working draft' sequence. It currently consists of 13 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                                                                                          Center project name: L3016
Center clone name: 9 L 18
Center clone name: 9 L 18
Sequencing vector: M13; M77815; 100% of reads
Chemistry: Dye-terminator Big Dye; 100% of reads
Assembly program: Phrap; version 0.960731
Consensus quality: 175883 bases at least Q40
Consensus quality: 179186 bases at least Q30
Consensus quality: 180361 bases at least Q20
Insert size: 182000; agazose-fp
Insert size: 181301; sun-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AC011221 182501 |
Homo sapiens clone RP11-9L18,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AACATTAAAACAAGTTAAATGGTA 155449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AACATTAAAACAAGTTAAATGGTA 2189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGTGAAGA 2165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCCACAACATTATGATTATTCTTTCTCTGTACTTTAGTATTTT
                                                                                                                                                                                                                                                                                                                                                                                                       en, B., Linton, L., Nusbaum, C. sapiens, clone RP11-9L18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        bp DNA linear HTG 04-SEP-200
, WORKING DRAFT SEQUENCE, 13 unordered
                                                                                                                                             Q20 bases;
Q20 bases;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and Lander, E
                                                                                                                                          agarose-fp
sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCACCATTTGTGAAGA 155473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HTG 04-SEP-2000
    밁
                                        Ś
                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                           Query Match
Best Local Similarity 96.3
Matches 2103; Conservative
                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
56444 GATGGGGACGTTGAGAGAÄACGAĞGAĞGAAĞGAĞAAAATGGCATCCATGGATTACAĞTA 56503
                         6 GAGACGGACGTTGAGAGAACGAGGAAGGAAGAGAAAATGGCGTCCACGGATTACAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               68229
68329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       54856
54956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              88543
                                                                                                                                                                          /note="assembly_fragment
clone_end:T7
vector_side:right"
                                                                                                                                                                                                                                                136219. .182501
                                                                                                                                                                                                                                                      /note="assembly_fragment"
                                                                                                                                                                                                                                                                                 /note="assembly_fragment"
109443. .136118
                                                                                                                                                                                                                                                                                                                                                                                                                                                 39585. .54855
                                                                                                                                                                                                                                                                                                                                                                              /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             vector_side:left"
7042. .8102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   clone_end:SP6
                                                                                                                                                                                                                                                                                                                                          note="assembly_fragment'
                                                                                                                                                                                                                                                                                                                                                                                                                      note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                              note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9256. .28050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3344. .19155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  organism="Homo sapiens"

(mol_type="genomic DNA"

(db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                clone_lib="RPCI-11 Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     clone="RP11-9L18"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      note="assembly_fragment"
                                                                                                  96.3%;
                                                                                                                                                                                                                                                                                                                                                                   .88542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . 9606
                                                                                                                                                                                                                                                                                                                           .109342
                                                                                                                                                                                                                                                                                                                                                                                                         .68228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .39484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gap of contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gap of contig gap of contig gap of contig gap of contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gap of contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gap of 100 bp
contig of 46283 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gap of contig
                                                                             Score 2033.6; DB Pred. No. 0; Mismatches 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          f 100 bp
g of 13273 bp
f 100 bp
g of 20214 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100 bp
g of 20700 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100 bp
of 5812 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100 bp
g of 1404 bp :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100 bp
g of 1061 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100 bp
of 15271 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100 bp
of 26676 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100 bp
of 11334 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of 8795 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of 3537 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of 6941 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Male BAC"
                                                                                79;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                in length
                                                                                                                     2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               in
                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length
                                                                                                                     Length 182501;
                                                                                <u>ب</u>
                                                                                Gaps
                                        65
```

COMMENT

Center code: WIBR

Quality coverage: 5.1 in Quality coverage: 5.1 in

JOURNAL TITLE

Wyman, D., Ye, W.J., Direct Submission

REFERENCE AUTHORS TITLE

1 (bases 1 to 182501) Birren, B., Linton, L.,

REFERENCE

JOURNAL

Jnpublished Homo

(bases 1 to 182501)

AUTHORS

SOURCE ORGANISM

Homo sapiens

ACCESSION VERSION

KEYWORDS

GI:9966283 PHASE1; HTGS_DRAFT.

RESULT 15 AC011221

DEFINITION

S 밁 S

155532

밁

155472

2166 AACATTAAAACAAGTTAAATGGTA 2169 	D 5	1086 TAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGAT 1145
GCCACAACATTATGATTATTCTTTCTGTACTTTAGTATTTTTCACCATTTGTGAAGA	P 5	1026 GAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATC 1085
2046 CCACATTTATTTTTYAACCAGAAAATGITTTAAATTTATAATTCCATATTTATAATCGT 2105 2046 CCACATTTATTTTTYAACCAGAAAATGITTTAAATTTATAATTCCATATTTATAATGIT 58541 58482 CCAGATTTATTTTTAAACCAGAAAATGITTTAAATTTATAATTCCATATTTATAATGIT 58541	S B 8	966 ATCGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGACGCGGTGGAÀTGGGCAGCGCTG 1025
GTCAGGACGCAGAGATCGGCCTACTAGATGCAGAGACCCCGCAGAGCTGCATTGACTA	B &	906 CAGGAGAAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTG
926 GANTGGGAGGAAGAAGAAGGAGGAGGACCTGGAAAAAATGGATAAAGGCGACACC 	D Qy	
GIGGCTTTGGIGGAGGAAGAACGACGAGGIGGCCCIGGGGGCCCCCGGACCTTTGATGTAACGTGGAAGAAAAACGTGGCCCTGGAGGGAAGACAAAGGTGGCCCTGGAGGGACCACCCC-GGACCTTTGATGTAAC	. QQ	786 GCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCAGCAGCAGAGTTCATTCC 845
BUG I CARANGA I GECCAS I GESTAGA CARANGA I GECTI I COGTAGO SAS COSAGO CONTROL SANCOSA E CONTROL SANCOS) B 8	726 AACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCACCC
	р 2	666 ACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTC 725
	S B 8	606 CATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTT 665
	S & S	546 GTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTC 605 [
ACCCCTCTGGAGGAGAACGTCCAGCACGAGCTGGAGACTGGCGGGGGCGGGGCCCAATCCGG	QQ dd	486 CTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGA 545
agegccgtggaggagarragagaggctrccctccaagagagaccccggggtrcccaagaga	å S	GGCAGCAGCAGCAGCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGA 4
	D Qy	CCAGGCCTCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATG 4
1386 AGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCAC 1445	dg VQ	306 AGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCA 3
26 AATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTGGGAAGA	B &	246 CTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCAGGCATACAGCC 3
1266 AGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCACCC	d dd	GRIATGUAGGACAGACCACAGACCACAGACCACAGACGACGAGACGAC
1206 AGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAA 1265 	D Qy	ATATECARGO AGCARGO ATATEGEGCA ACABAGCTA TOGA ACCTATO AGACAGCO CARA AGCA AGACAGACAGACAGACAGACAGACAGACAGACA
1146 TANATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTA 1205 	Qy Db	n n

Search completed: February 20, 2005, 11:50:21 Job time : 10045.3 secs This Page Blank (uspto)

```
Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Run on:
                                                                                                                                                                                                                                                      Database :
                                                                                                                                                                                                                                                                                                                                                              Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
N Geneseq 16Dec04:*
1: geneseqn1980s:*
2: geneseqn1990s:*
3: geneseqn2001as:*
4: geneseqn2001as:*
5: geneseqn2002bs:*
6: geneseqn2002bs:*
7: geneseqn2002bs:*
9: geneseqn2003bs:*
10: geneseqn2003cs:*
11: geneseqn2003cs:*
12: geneseqn2003ds:*
13: geneseqn2004bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     February 20, 2005, 00:31:32 ; Search time 1159.11 Seconds (without alignments) 12206.093 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                      4390206 segs, 2959870667 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-791-017A-1
2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GenCore version 5.1.6 Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                       8780412
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		P			SUMMARIES	
Result	Score	Query	Query Match Length	BB	ID	Description
1	2390	100.0	2390	13	ADS16277	Ade16277 Human cDN
N	2388.4	99.9	2390	σ	ABK84628	Abk84628 Human cDN
w	2388.4	99.9	2390	6	ABK64822	Abk64822 Human ben
4	2388.4	99.9	2390	σ	ABN97274	Abn97274 Gene #377
ហ	2388.4	99.9	2390	13	ACN40903	Acn40903 Tumour-as
6	2369.4	99.1	2371	N	AAQ50643	Aaq50643 Human Ews
7	2357.8	98.7	2372	13	ADQ86032	Adq86032 Human tum
8	2281.2	95.4	2388	v	AAS70647	Aas70647 DNA encod
ი 9	2179.6	91,2	2273	σ	AAS62623	Аав62623 cDNA веди
c 10	2141.8	89.6	2176	σ	AAS62262	Aas62262 cDNA sequ
11	2033.4	85.1	2177	13	ACN37537	Acn37537 Tumour-as
12	1927.4	80.6	2188	თ	ABI99383	Abi99383 Mouse isc
13	1808.4	75.7	1988	10	ADA53506	Ada53506 Human cod
14	1782.8	74.6	2026	13	ADR07446	Adr07446 Full leng
15	1564.4	65.5	1807	13	ADP56333	Adp56333 Human PRO
16	1305	54.6	3309	N	AAQ50646	Aaq50646 Human Ews
17	819	34.3	2403	N	AAT97870	Aat97870 cDNA enco
18	819	34.3	2412	N	AAT97869	
19	797.6	33.4	1431	თ	ABS73253	
20	758.4	31.7	856	13	ACN37540	Acn37540 Tumour-as

S

1140

1080 1080 1020 1020

960 960 900 900 840 840

1260 1260 1200 1200

```
CC This invention relates to a novel modulators that alter the interaction CC between the Ewing sarcoma protein (EWS) and its nuclear receptor, as well CC as the screening method thereof. Specifically, it refers to determining CC and identifying a hormonal effect brought about by test compounds that CC induced activity of this receptor. The present invention describes the nuclear receptors as including oestrogen, progesterone, thyroid hormone, CC vitamin D, and retinoic acid receptors, most preferably they are androgen CC receptors. Accordingly, these modulators may be used in the development CC diseases associated with receptor dysfunction such as prostatic cancer, acone, hypogonadism and androgen-resistance syndrome e.g. CC testicular feminisation. This method provides reliable, sensitive, CC simple, inexpensive and rapid assessment of the hormonal effects of these CC test compounds. This polynucleotide sequence is the cDNA encoding the Numan Ewing sarcoma protein of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 2390; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                         661
                                                                                               661
                                                                                                                                    601
                                                                                                                                                                          601
                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                       721
                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ب
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAGGGAGACGGACGTTGAGAGAAGAACGAGGAGGAGGAGGAGAAAATGGCGTCCACGGATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGTACCTATAGCCAAGCTGCAGCGCAGCAGCAGCGCTTACACTTACACCGCCCAGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2390 BP; 646 A; 589 C;
CAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTA
                                                                                                                                                              ACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG
                                                                                                                                                                                                                ACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGC
                                                                                                                                                                                                                                          ACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCCATGCAGCCAGTCACTGC
                                                                                                                                                                                                                                                                                                                       TGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCCTATGGGCAGACCGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGGCTACAGTGCTTACACCGCCCAGCCCAC
                                                                                                                                    ACCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG
                                                                                                                                                                                                                                                                                             TGAGACTAGTCAACCTCAATCTAGCACAGGGGGGTTACAACCAGCCCAGCCTAGGATATGG
                                                                                                                                                                                                                                                                                                                                                                                                            CTATGGGCAGCAGCCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                CACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGAGGGAGACGGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 2390;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             668 G; 487 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 2390;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                      660
                                                                                                                                                                          660
                                                                                                                                                                                                                909
                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                             720
                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                             밁
                                                                                                               S
                                                                                                                                                          문
                                                                                                                                                                                      S
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                               δ
                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1141
                                                                                                                                                          1681
                                                                                                                                                                                                1681
                                                                                                                                                                                                                                      1621
                                                                                                                                                                                                                                                                         1621
                                                                                                                                                                                                                                                                                                             1561
                                                                                                                                                                                                                                                                                                                                                   1561
                                                                                                                                                                                                                                                                                                                                                                                        1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                              1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCACCACCACTCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGGACCCATGGGTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                CATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCCTCCAAGAGGACCCCCGGGGTTCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGGAGCAAACTTAAAGTCTCCCCTTGCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGACGCGGTGGAATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGAGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTCCGACAGGACCACCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATC
     AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA
                           AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA
                                                                                   Tegecertegrarecegegaggaagaegregeercategategregiegrecegereg
                                                                                                       TGGCCCTGGTGGCATGCGGGGAGGAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGG
                                                                                                                                                        AAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGG
                                                                                                                                                                                  AAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGG
                                                                                                                                                                                                                                                                         TCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCC
                                                                                                                                                                                                                                                                                                                                                     AGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAA
                                                                                                                                                                                                                                                                                                                                                                                            CATGGGAGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCCATGGGTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACA
```

ঠ 밁 S 밁 δ

5 밁 Ş 밁

> 1860 1800 1800

1860

1680 1680 1620 1620 1560 1560 1500 1440 1440 1380 1380

1500

밁

Ş 片 S

밁 δ 밁 ঠ 밁 ঠ 밁 ঠ 밁 S 밁

```
RESULT 2
ABK84628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                      viral infection; parasitic infection; protozoal infection; fungal infection; sterile inflammatory disease; psoriasis; rheumatoid arthritis; glomerulonephritis; asthma; thrombosis; cardiac reperfusion injury; renal reperfusion injury; ARDS; adult respiratory distress syndrome; inflammatory bowel disease; crohn's disease; ulcerative colitis; periodontal disease; granulocyte activation; chronic inflammation; allergy.
           WPI; 2002-435328/46
                                                                                                                                                                                                                                                                                                                                                                                               ABK84628 standard; cDNA; 2390
                                 Beazer-Barclay Y,
                                                                                                          03-OCT-2001; 2001WO-US030821
                                                                                                                                                           WO200228999-A2
                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                    Human cDNA differentially expressed in granulocytic cells #1199
                                                                                  03-OCT-2000; 2000US-0237189P
                                                                                                                                                                                                                                                                                                                                                 14-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                             2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1861
                                                                                                                                                                                                                                                                                              88;
                                                         GENE LOGIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGAGACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAGGACCTGGAAAAAATGGATAAAGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ТТТТТТАРАРАТАРААТТССРБАТССТТРАТДАТАЛАЛАЛАЛАЛАЛАЛАЛАЛА
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAAATGGTTGTTTAAGACTTTAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACTACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACTACCAGATTTATTTTTAAACCAGAAAATGTTTTTAAATTTATAATTTCCATATTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAAATGGATAAAGGCGA 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGAT 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATT
                                                                                                                                                                                                                                                                                            granulocytic cell; DNA chip; bacterial infection;
                                                                                                                                                                                                                                                                                                                                              (first entry)
                                    Weissman
                                 SM,
                                 Yamaga S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1980
```

Detecting granulocyte activation by detecting differential expression of genes associated with granulocyte activation, which serves as diagnostic markers that is useful for monitoring disease states and drug toxicity.

Claim 1; SEQ ID NO 1199; 114pp; English.

CC (GCA), by detecting the level of expression of gene (GC) activation (CC (GCA), by detecting the level of expression of gene (S) identified by CC (DNA chip analysis as given in the specification, and comparing the CC expression level to an expression level in an unactivated GC, where CC differential expression of Gs is indicative of GCA. Also included are CC differential expression of Gs is indicative of GCA. Also included are CC expression of at least one gene in Gs; (2) screening (M2) for an agent CC capable of modulating GCA or an inflammation (especially chronic) in a CC tissue, an allergic response in a subject, exposure of a subject to a CC pathogen or sterile inflammatory disease using the gene expression CC pathogen or sterile inflammatory disease, by detecting the level of CC expression in a subject that tissue of specially chronic) in a tissue, an allergic response in a subject to a pathogen or sterile inflammatory disease, by detecting the level of expression in a subject, exposure of a subject to a gent that modulates the expression of gene(s) from Gs, where the level (MS) an inflammation (especially chronic) in a tissue, an allergic response in a subject to a pathogen or sterile of inflammation (in a tissue, an allergic response in the tissue M1 is useful for modulating GA; M3 is useful CC exposure of a subject to a pathogen or sterile of inflammation with an CC inflammation in a tissue, an allergic response in a subject, capolate of modulating GA; M3 is useful CC exposure of a subject to a pathogen or sterile inflammation with an CC inflammation in a tissue, an allergic response in a subject, capolated provided pathogen or sterile inflammation with an allergic response in a subject, capolated provided pathogen or sterile inflammatory disease (e.g. capolated provided pathogen or sterile inflammatory disease (e.g. capolated pathogen or sterile inflammatory disease (e.g. capolated pathogen capolated pathogen capolated pathogen capolated pathogen capolated pathogen capolated pathogen capolated patho electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences M3 is useful level M an ġ á

Sequence 2390 BP; 645 A; 589 C; 668 G; 488 T; 0 U; 0 Other;

Query Match Best Local Similarity Matches 2389; Conserv Conservative 99.9%; Score 2388.4; Pred. No. 0; Mismatches В ۲, 6 Indels Length 2390 0; Gaps 0

		:
δ.	1 AGAGGGAGACGGACGTTGAGAGAACGAGGAGGAGGAGAAAAATGGCGTCCACGGATTA 60	ö
Db	1 AGAGGGAGACGGTTGAGAGAACGAGGAGGAGGAGAGAGAAAATGGCGTCCACGGATTA 60	Ö
Qy		120
Db	61 CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAC 1	120
Ş	121 TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA 1	180
Db	121 TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA: 1	180
φ	181 GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA 2	240
Db	181 GCCCACTGATGTCAGCTATACCCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA 2	240
Ş	241 TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATA 3	300
DЬ	241 TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACCTGCCCCCCAGGCATA 3	300
S)	301 CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACCACTGCTACAGTCAC 3	360
Вb	301 CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCAC	360
Q Y	361 CACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC 4	420

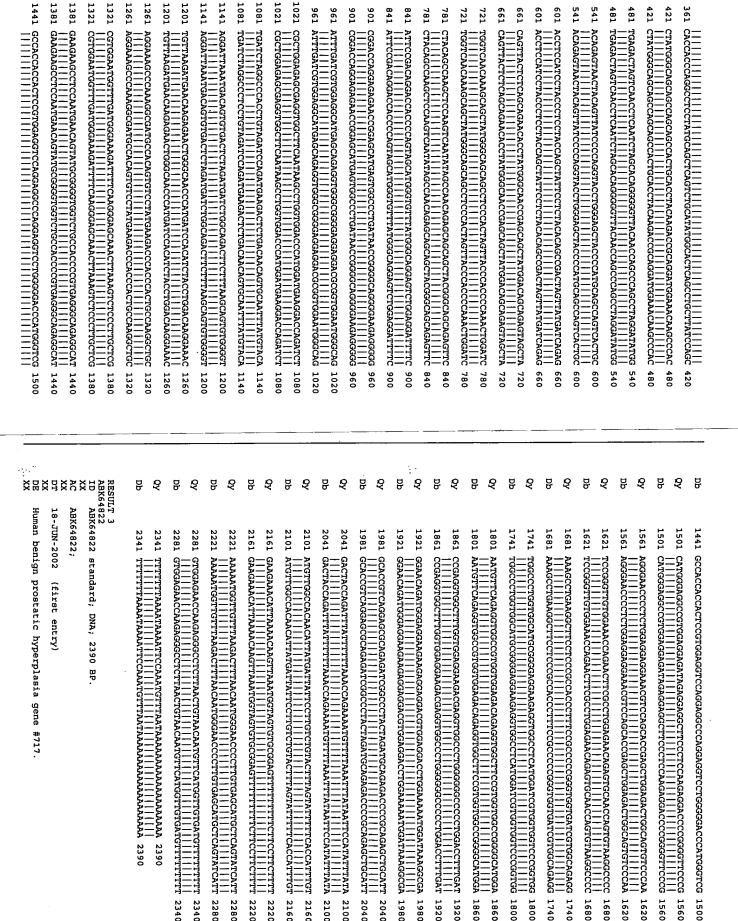
밁 δ 문

음 &

S

음 성 음

밁 Ś 유



뮍

Ş

유 성

밁 Ş 밁 δ

멍 S

음 성 음 성

 S В Ş 밁 S 뭐 δ 밁 S

```
밁
                                                                     ঠ
                                                                                                             밁
                                                                                                                                     ð
                                                                                                                                                                               문
                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                               र्
     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to a method of diagnosing (I) the onset or CC progression of benign prostatic hyperplasia (BPH), or screening (II) for CC price of the method is based on changes in gene expression in BPH tissue isolated from patients exhibiting different clinical states of prostate (CC from patients exhibiting different prostate tissue. (I) comprises (CC from patients exhibiting different prostate tissue. (I) comprises (CC from patients exhibiting differentially regulated compared to normal prostate ceits. (II) comprises (CC from the subject that are differentially regulated compared to normal (CC prostate ceils. (II) comprises preparing a first gene expression profile (CC agent, preparing a second gene expression profile of the agent exposed (CC ells, and comparing the first and second gene expression profiles. (I) is useful for diagnosing the onset or progression of BPH. (II) is useful for identifying an agent that modulates the onset or progression of BPH. (CC in methods are useful to present information identifying the expression (CC expression of gene in the database, and displaying the expression levels of at least one gene in the database, and displaying the expression levels (CC expression of gene in the database, and displaying the expression levels (CC prostate cancer. ABK64106-ABK64860 represent human benign prostatic very contact in the invention (CC hyperplasia gene sequences of the invention (CC hyperplasia gene sequences of the invention (CC) hyperplasia gene (CC) hyperplasia 
                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 2389; Conser
                                                                                                                                                                                                                                                                                                                                                                                             Sequence 2390 BP; 645 A; 589 C; 668 G; 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Identifying drugs for and diagnosing benign prostatic hyperplasia, by detecting expression levels of one or more genes in prostate cells from that are differentially regulated compared to normal prostate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 399-400; 444pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GENE-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-AUG-2000; 2000US-0223323P
05-JUN-2001; 2001US-00873319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-AUG-2001; 2001WO-US024708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-FEB-2002
       241
                                        181
                                                                           181
                                                                                                             121
                                                                                                                                              121
                                                                                                                                                                                 13
                                                                                                                                                                                                                  13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      benign
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JAPAN TOBACCO I
                                                          GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA
                                                                                                                                   TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA
   TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATA
                                      GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA
                                                                                                          TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA
                                                                                                                                                                               CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAC
                                                                                                                                                                                                               CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAC
                                                                                                                                                                                                                                                   AGAGGGAGACGGACGTTGAGAGAACGAGGAGGAGGAGAGAAAATGGCGTCCACGGATTA
                                                                                                                                                                                                                                                                                    AGAGGGAGACGGACGTTGAGAGAACGAGGAGGAGGAGAGAAAATGGCGTCCACGGATTA
                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kulkarni P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  prostatic hyperplasia; BPH; prostate cancer; gene;
                                                                                                                                                                                                                                                                                                                                       99.9%; Score 2388.4; 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Getzenberg RH,
                                                                                                                                                                                                                                                                                                                           ..
                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Waga
                                                                                                                                                                                                                                                                                                                                                                                             T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                          DB 6;
                                                                                                                                                                                                                                                                                                                       1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   H
                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                        Length 2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Yamamoto
                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             by
from
                                                                                                                                                                                                                : 120
                                                                                                          180
                                                                                                                                           180
                                      240
                                                                       240
                                                                                                                                                                               120
                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ,
B
                    δ
                                                     밁
                                                                                    S
                                                                                                                                                      ş
                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                              닭
                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                     1321
                                                      1261
                                                                                       1261
                                                                                                                                                           1201
                                                                                                                                                                                              1141
                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                          1201
                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361 CACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
CGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCG
                                                                                                                                                                                                                  AGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGT
                                                                                                                                                                                                                                                                TGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACA
                                                                                                                                                                                                                                                                                      TGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTA
                                                                           TGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAC
                                                                                                                                             TGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAC
                                                                                                                                                                                              AGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGT
                                                                                                                                                                                                                                                                                                                                       CGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCT
                                                                                                                                                                                                                                                                                                                                                               CGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCT
                                                                                                                                                                                                                                                                                                                                                                                                         ATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGAGGACGCGGTGGAATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGACCAGGAGAGCAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCTACGGGCAGCAGAGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAGAGTAACTACAGTTATCCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGAGACTAGTCAACCTCAATCTAGCACAGGGGGGTTACAACCAGCCCAGCCCTAGGATATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTATGGGCAGCAGCCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCAC
                  1380
                                                     1320
                                                                                                                        1260
                                                                                                                                                         1260
                                                                                                                                                                                              1200
                                                                                                                                                                                                                                                                1140
                                                                                                                                                                                                                                                                                                   1140
                                                                                                                                                                                                                                                                                                                                      1080
                                                                                                                                                                                                                                                                                                                                                                       1080
                                                                                                                                                                                                                                                                                                                                                                                                           1020
                                                                                                                                                                                                                                                                                                                                                                                                                                              1020
                                                                                                                                                                                                                               1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
```

ঠ 밁 δ 밁

```
1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1441
2341
                                                                                                                                                                                                                                                                                    2161
                                                                                                                                                                                                                                                                                                                            2101
                                                                                                                                                                                                                                                                                                                                                                  2101
                                                                                                                                                                                                                                                                                                                                                                                                        2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAAGAAGCCTCCAATGAACAGTATGCGGGGGGGGTCGTCTGCCACCCCGTGAGGGCAGAGGCAT 1440
                                                                                                                                                                                                                                                                 AAAGCCTGAAGGCTTCCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATGGGAGGCCGTGGAGGAGTAGAGGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCACCACCACCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCG
                                                                                GTGGAGAACCAAGAGGGCCTCTTAACTGTAACAATGTTCATGGTTGTGATGTTTTT
                                                                                                                                                                                                    AAAAATGGTTGTTTAAGACTTTAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATT
                                                                                                                                                                                                                                                                                                                                                   ATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGT
                                                                                                                                                                                                                                                                                                                                                                                                            GACTACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                 GACTACCAGATTTATTTTTAAACCAGAAAATGTTTTTAAATTTATAATTCCATATTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCCTGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGA 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA 1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGCCCTGGTGGCATGCCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATGGGAGGCCGTGGAGGAGATAGAGGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCG
                                   ATGTTGGCCACACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGGAACCCCTCTGGAGGAAGCGACCAGCACCGAGCTGGAGACTGGCAGTGTCCCAA
2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1380
                                                                                                                                                                                                    2280
                                                                                                                                                                                                                                                                                    2220
                                                                                                                                                                                                                                                                                                                            2160
                                                                                                                                                                                                                                                                                                                                                                    2160
                                                                                                                                                                                                                                                                                                                                                                                                            2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1500
                                                                                2340
                                                                                                                                                              2280
                                                                                                                                                                                                                                            2220
                                                                                                                        2340
```

Ş

뭐 Ś 밁

吊

S

밁 ঠ 밁 ş 맑 S 밁 δ 밁

片 Ş

```
Gene; liver cancer; ds; hepatocellular carcinoma; hepatotropic; metastatic liver tumour; cytostatic; expression profile; disease st disease progression; drug toxicity; drug efficacy; drug metabolism.
                                                                                                                                                                                02-OCT-2000; 2000US-0237054P.
                                                                                                                                                                                           02-OCT-2001; 2001WO-US030589
                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                     ABN97274 standard; DNA; 2390
                                                                                                                                                                                                                                                                  #3772 used to diagnose liver cancer
                                                                                                                                                                    GENE LOGIC INC
                                                                                                                                                                                                                                                                              (first
```

state;

Diagnosing and detecting the progression of liver cancer, hepatocellular carcinoma or metastatic liver tumor in a patient, involves detecting the level of expression of two or more genes in a liver tissue sample.

á

Alvares C,

Peres-Da-Silva S,

Vockley

SEQ ID NO 3772; 298pp; English.

The invention relates to a novel method for diagnosing and detecting the progression of liver cancer, hepatocellular carcinoma or metastatic liver tumour in a patient, and differentiating metastatic liver cancer from hepatocellular carcinoma in a patient, involving detecting the level of expression of two or more genes represented in ABN93503-ABN97455 in a tissue sample. The method of the invention has hepatotropic, and cytostatic activity. The method is useful for diagnosing and detecting the progression of liver cancer, hepatocellular carcinoma and metastatic liver carcinoma in a patient. The method is useful for identifying expression profiles which serve as useful diagnostic markers as well as markers that can be used to monitor disease states, disease progression, drug toxicity, drug efficacy and drug metabolism. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences

Sequence 2390 BP; 645 A; 589 C; 668 G; 488 T; 0 U; 0 Other;

Query Match Best Local Similarity Matches 2389; Conserv

Conservative

<u>.</u>

99.9%;

Score 2388.4; ; Pred. No. 0; 0; Mismatches

B 1; 6

Indels Length

0

Gape

0

닭 S 밁 δ 밁 S 吊 á 181 181 121 61 61 CAGTACCTATAGCCAAGCTGCAGCGCAGCAGCAGGGCTACAGTGCTTACACCCGCCCAGCCCAC TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATA GCCCACTGATGTCAGCTATACCCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA TCAAGGATATGCACAGACCCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA CAGTACCTATAGCCAAGCTGCAGCGCAGCAGCAGCGCTACAGTGCTTACACCGCCCAGCCCAC AGAGGGAGACGACGTTGAGAGAACGAGGAGGAAGGAGAAAAATGGCGTCCACGGATTA AGAGGGAGACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTA 240 180 180 120 60 8 120

RESULT 4 ABN97274

밁 8 밁 ঠ 밁 S 밁 ঠ 밁 8 밁 δ 밁 Ş

ঠ	유 성	<u> </u>	8	용 <i>성</i>	<u> </u>	용 &	å 8	<u> </u>	ß 8	용 성	용 성	<u> </u>	용 <i>성</i>	<u> </u>	용 &	문 <i>왕</i>	ß 8	Db
1321 CGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCG 1380	1261 AGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCACCC	1201 TGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAC 1260 	1141 AGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGT 1200 	1081 TGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACA 1140	1021 CGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCT 1080	961 ATTTGATCGTGGAGGCATGAGCAGAGGTCGGCGGGGAGGACGCGGTGGAATGGGCAG 1020 	901 CGGACCAGGAGAAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGG 960 	841 ATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTC 900	781 CTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCAGCAGCAGCAGCAGAGTTC 840	721 TGGTCAACAAAGCAGCTATGGGCAGCAGCCACCTAGTTACCCACCC	661 CAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTA 720	601 ACCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG 660	541 ACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGC 600	481 TGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGG 540	421 CTATGGGCAGCAGCAGCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCAC 480	361 CACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC 420	301 CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCÃC 360 	241 TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATA 300
RESULT 5 ACN40903	B &	P &) B &) B &	}	}	g 4	B 8	5	· \$ \$	}	;	}	}	} B 5	}	?	S B
3	2341 TTTTTTAAAATAAAATCCAAATGTTTAATAAAAAAAAAA	81 GTGGAGAACCAAGAGGCCCTCTTAACTGTAACAATGTTCATGGTTGTGTGTTGTTTBTTT 81 GTGGAGAACCAAGAGGGCCTCTTAACTGTAACAATGTTCATGGTTGTGTATGTTTT	21 AAAAA 1991 1911 1AAAAA 11 1AAAA 1893AAA CCCCTTGTGAGATACCAGTATCATT [O GAAGAAACAITAAAACAAGITAAAIGGIAGIGGGGGAGTITITITITCTTCCTTCTTTT 61 GAAGAAACATTAAAACAAGTTAAAIGGTAGTGTGCGGAGTTTTTTTTTT	OI AISINGCEACHACHIAIGHIAICHICEIGICIGEACHAGHAILLICACCHILIGE OI AIGTIGGCCACHACHIAIGHIAICHILIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	41 GACTACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTATAATTCCATATTTATA 41 GACTACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATA 41 GACTACCAGATTTATTTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATA 41 GACTACCAGATTTATTTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATA	B1 GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCGCAGAGCTGCATT	21 GEARCHGA I GGENGERIANGERIGENG I GERGERICE I GERALARA I GERT RANGECIGA I HANGECIGA I GERALARA I GERA	CCANGETGGCTTTGGTGGAGGAAGAACGAGGTGGCCCTGGGGGCCCCTGGACCTTTGAT	O1 AATGITCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA O1 AATGITCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA O1 AATGITCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA	741 109CCC109109CA10COS090NOAMAGNOG109CC1CA109A1CC1091091CCC091091	BI AMAGETIMANGETICTICECCACCTITECCGCCCCCGGGGGGATGATCGTGGCAGAGG I AMAGECTGAAGGCTTCCTCCCGCCACCTTTCCGCCCCCGGGTGATCGTGGCACAGGG I AAAGCCTGAAGGCTTCCTCCCGCCACCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGG I	21 TCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCC	TRANSPORT TO THE TRANSPORT OF THE TRANSPORT OF TRANSPORT OF THE TRANSPORT	1 CATGGGAGGCCGTGGAGGAAAAA AWWGAGGCTCCCCCCAAGAGGACCCCCGGGGTTCCCCCCCCCC	THE CONTROL OF THE CO	81 GAAGAAGCCACTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCAT	1321 CGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCG 1380

```
ş
                                                         밁
                                                                                          S
                                                                                                                                                                                                                                         polypeptides; expression vectors and host cells comprising a TAT nucleic cacid; an antibody specific for a TAT polypeptide; a peptide or organic molecule which binds to a TAT polypeptide; fusion proteins comprising a TAT polypeptide; and methods and compositions for the treatment or diagnosis of cancer in mammals. TAT polypeptides, nucleic acids, antibodies, antagonists, binding molecules and compositions are useful for diagnosing or treating a cell proliferative disorder associated with increased TAT expression, particularly cancers such as breast cancer, colorectal cancer, lung cancer, ovarian cancer, liver cancer, bladder cancer, pancreatic cancer, cervical cancer, cancers of the central nervous system, melanoma and leukaemia. TAT nucleic acids may further be used as hybridisation probes, in chromosome and gene mapping, in chromosome identification and in gene therapy. The present sequence
                                                                                                                                   Best Loc
Matches
                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tumour-associated antigenic target; TAT; human; overexpression; continuour; diagnosis; cell proliferative disorder; breast cancer; colorectal cancer; lung cancer; ovarian cancer; liver cancer; central nervous system cancer; bladder cancer; pancreatic cancer; cervical cancer; melanoma; leukaemia; hybridisation probe; chromosome identification; chromosome mapping; gene mapping;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         serve as effective targets for the diagnosis and treatment of cances mammals. The invention also relates to nucleic acid and polypeptide sequences at least 80% identical to the TAT nucleic acids and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to human tumour-associated antigenic target (TAT) polypeptides, and their related nucleic acids. The TAT polypeptides are overexpressed in cancer tissues compared to normal tissues, and may thus serve as effective targets for the diagnosis and treatment of cancer in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACN40903 standard; cDNA; 2390 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; SEQ ID NO 5989; 7273pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           useful in preparing a medicament for treating or detecting a proliferative disorder, e.g. breast, lung, colorectal, ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-OCT-2002; 2002US-0414971P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene therapy; cytostatic; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tumour-associated antigenic target (TAT) cDNA DNA269830, SEQ ID NO:5989.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACN40903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             prostate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New tumor-associated antigenic target polypeptides and nucleic acids,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P-PSDB; ABM82330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wu TD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-SEP-2003; 2003WO-US028547.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO2004030615-A2
                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2004-347921/32.
                     61
                                                           \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zhang Z,
CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAC
                                                                                                                                                                                                            2390
                                                                                  AGAGGGAGACGGACGTTGAGAGGAACGAGGAGGAGGAGAGAAATGGCGTCCACGGATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cancer or tumor.
                                                           AGAGGGAGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTA
                                                                                                                                 99.9%;
ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                            BP; 645 A; 589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zhou
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ۲
                                                                                                                                   <u>,</u>
                                                                                                                                                  Score 2388.4;
Pred. No. 0;
                                                                                                                                                                                                            G
                                                                                                                                                                                                            668 G; 488 T; 0 U;
                                                                                                                                   Mismatches
                                                                                                                                                                       DB 13;
                                                                                                                                   1;
                                                                                                                                   Indels
                                                                                                                                                                                                            0 Other;
                                                                                                                                                                       Length 2390;
                                                                                                                                   <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                မ္ပ
                                                                                                                                   Gaps
                                                                                              60
                         120
                                                           60
                                                                                                                                   0
     뭥
```

1141 AGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGT 1200 	g &
081 TGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACA 114	B 8
021 CGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCT	皮
021 CGCTGGAGAGGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCT 108	γQ
61 ATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGACGCGGTGGAATGGGCAG 102	문 5
0.1 PREJECTIVE REPORTS DE L'ARCHARD RESEAU PARCHE L'ARCHARD PRESEAU PRESEAU PROFESSION DE L'ARCHARD L'ARCH	? 5
01 CGGACCAGGAGAAGAAACCGGAGCATGAGTGACCTGATAACCGGGGGAGAGAAGAAGACGAGAGAAGAACAAGACGAGAGAAGA	₹ 2
41 ATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGAGA	B &
81 CTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTC 84	₽ D
81 CTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTT	প্ত
21 TGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCA(용 성
61 CAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCTATGGACAGCAGAGTAGCTA 72	용 성
01 ACCTCCATCCTACCCTACCTACTCATTCCTCTACACAGCCGACTAGTTATGATG) B
01 ACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG 66	. S
	ᅡ
41 ACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGC 60	8
481 TGAGACTAGTCAAACCTCAATCTAGCACAGGGGTTACAACCAGCCCAGCCCTAGGATATGG 540	ş 8
21 CTATGGGCAGCAGCAGCACTGCACCTACAAGACCGCAGGATGGAAAAC	Db
21 CTATGGGCAGCAGCAGCAGCACTGCACCTACAAGACCG	Ş
	문 !
61 CACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC 42	S E
01 CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCAC	. S
41 TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCAT	뫄
4	Ş
81 GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCT	뮍
81 GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGG	Ş
121 TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA 180	음 성
1 CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAC 12	DЬ

```
1501
                                                                                                                                                                                                                                                                                                                1921
                                                                                                                                                                                                                                                                                                                                                                              1861
                                                                                                                                                                                                                                                                                                                                                                                                             1861
                                                                                                                                                                                                                                                                                                                                                                                                                                           1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1201
                                                                                                                          2101
                                                                                                                                                       2101
                                                                                                                                                                                      2041
                                                                                                                                                                                                                    2041
                                                                                                                                                                                                                                                    1981
                                                                                                                                                                                                                                                                                  1981
                                                                                                                                                                                                                                                                                                                                               1921
                                                            2161
                                                                                         2161
                                                                                                                                                                                   GGAACAGATGGGAAGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAAGGCGA
                                                                                                                                                                                                                                                                                                                                                                                             CCGAGGTGGCTTTGGTGGAGGAGGAGGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCCGGGGCATGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCACCACCACCTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGAACCCATGGGTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTTGCCCACCCCCGTGAGGGCAGAGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAC
                                                                                                                                          ATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGT
                                                                                                                                                                                                                                                                   GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ANAGECTGANGGETTECTECEGECACCETTTECGCCCCCGGGTGGTGATCGTGGCAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCGGGTGGTGATCGTGGCAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATGGGAGGCCGTGGAGGAGATAGAGGAGGACCTCCCAAGAGGACCCCCGGGGTTCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAC
                 AAAAATGGTTGTTTAAGACTTTAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATT
                                                                              GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGCCCCGCAGAGCTGCATT
                                                                                                                                                                                                                                                                                                                GGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGA
                                                                                                                                                                                                                                                                                                                                                                             CCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                            AATGTTCAGAGGTGGCCGTGGTGGAGAGAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAA
 AAAAATGGTTGTTTAAGACTTTAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATT
                                                                                                                                                                                                                                                                                                                                                                             1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1800
                                                                                                                                                                                                                                                                                  2040
                                                                                                                                                                                                                                                                                                                1980
                                                                                                                                                                                                                                                                                                                                               1980
                                                                                                                                                                                                                                                                                                                                                                                                             1920
                                                                                                                                                                                                                                                                                                                                                                                                                                         1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1260
                              2280
                                                             2220
                                                                                         2220
                                                                                                                        2160
                                                                                                                                                       2160
                                                                                                                                                                                     2100
                                                                                                                                                                                                                                                   2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1260
2280
```

र्

맑

吊 Ś

GAGAACGAGGAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCT GAGAACGAGGAGGAAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCT

60 79 0

Query Match Best Local Similarity Matches 2370; Conserv

99.1%; milarity 100.0%; Conservative

.0%;

b; Score 2369.4;
b; Pred. No. 0;
0; Mismatches

멂

Ŋ ,.

ļ,

Indels Length

0,

Gaps

20

밁 S 문 ঠ 밁 S 밁 ঠ 밁 र् g ş 밁 S 밁 र् 밁 S 밁 S 밁 Ş В S 밁 δ 밁 S 밁 5 밁 δ

음 성

```
ARBSULT 6
ARAG50643
AND 50643
AND 50643
AND 50645
AND 7
AND 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유정
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                       Aurias
Thomas
                                       The probes 22RR3 and 22RR12 were used to screen a human foetal brain library (Stratagene cat.# 936206). The clone BFLAC5 was identified at sequenced. It represents the entire coding region and 3'-UTR of the gene. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                   New nucleic acid of EWS gene and its hybrid(s) - contg. gene sequence involved in chromosomal trans-location, also derived mRNA, probes, fusion proteins etc., for diagnosis and treatment of Ewing sarcoma and melanoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                malignant melanoma; hum-fli-1; primitive peripheral neuroectodermal human chromosome 22; ss.
                                                                                                                                                                                                                                                                          WPI; 1993-386580/48.
P-PSDB; AAR44555.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-MAR-2003
26-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAQ50643
  Sequence
                                                                                                                                            Disclosure; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                               20-MAY-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 chromosomal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human
                                                                                                                                                                                                                                                                                                                                                                                                   (CNRS ) CNRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ews
                                                                                                                                                                                                                                                                                                                                       ð, Þ
  2371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                         Delattre
Zucman J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           translocation; chimeric;
elanoma; hum-fli-1;
                                                                                                                                                                                                                                                                                                                                                                                                      CENT
  BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
25..1995
/*tag= a
/product= "BWS protein"
/transl except= pos:1729.
2143. 2148
/*tag= b
/*tag= c
/*tag= c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        clone BF1AC5
                                                                                                                                                                                                                                                                                                                                                                                                                                               92FR-00006123.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93WO-FR000494
                                                                                                                                               6;
  639 A;
                                                                                                                                                                                                                                                                                                                                                                                                      NAT RECH
                                                                                                                                            123pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDNA;
                                                                                                                                                                                                                                                                                                                                                          Ó
                                                                                                                                                                                                                                                                                                                                                            Desmaze
  587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2371
                                                                                                                                                 French
                                                                                                                                                                                                                                                                                                                                                                                                      SCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          from
Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ВP
659 G;
                                                                                                                                                                                                                                                                                                                                                          Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  pos:1729.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          foetal
                                                                                                                                                                                                                                                                                                                                                            Melot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tumour; human chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 chimaeric;
  486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          brain
                                                                                                                                                                                                                                                                                                                                                          'n,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .1731;
  T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDNA
                                                                                                                                                                                                                                                                                                                                                            Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ewing
                                                                                                                                                                                                                                                                                                                                                            Σ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sarcoma;
                                                                                                                                                                                                                                                                                                                                                            Plougastel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2390
                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2340
```

980 AGCAGAGGTGGGCGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGAGGTGGC 1039	800 CAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCC 859	620 ACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAAC 679	421 GCCACTGCACCTACAACCAGAGATGCAACCAGCCCATGCACCAGAGCTAGTACTACACTACACCAGAGCCCAGCCTAGAACCTAGAGACTAGTCAACTACAGTTAT 559 500 TCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTAT 559	TATGGCACTGGTGCTTATGATACCACCACTGCTACACTCACCACCACGACGCCTCCTAT	80 GCAGCGCAGCAGGACTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACC 139
8 8 8 8 8 8 8	5	2	QV B QV B QV E	p	B & B & B & B & B
2041 TARACCAGAAATGTTTTAAATTTATAATTCCATATTATAATGTTGGCCACAACATTATAACAAG 2179 2120 GATTATTCCTTGTCTTAGTATTTATAATTTCACCATATTGTAAAGAAACATTAAAACAAG 2179 2110 GATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGTGAAGAACATTAAAACAAG 2179 2101 GATTATTCCTTGTCTGTTACTATTTTTCACCATTTGTGAAGAACATTAAAACAAG 2160 2180 TTAAATGGTAGTGTGCGGAGTTTTTTTTTTTTCTTCTTTTTAAAAATGGTTGTTTAAGAC 2239 2161 TTAAATGGTAGTGTGCGGAGTTTTTTTTTTTCTTCTTTTAAAAATGGTTGTTTAAGAC 2239 2161 TTAAATGGTAGTGTGCGGAGTTTTTTTTTTTCTTCTTTTAAAAATTGGTTGTTTAAGAC 2239 2161 TTAAATGGTAGTGTGCGGAGCTTTTTTTTTTTTTTTTTT	GAAGGAGGACGAGATGAGAGACCCCCGCAGAGATGAATGA	CCGCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	GANANCETICAGCACCAGGETGGAGACCAGGETGGCAATCCGGGTTGTGGAAACCAG 163	1400 AGTATGCGGGGTCGTCCACCCCCGTGAGGGCAGAGGCATGCCACCACCACCCCGTGGA 1459	1160 ACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGA 1219

Ş

음 성 음

S

음 성 음 성

8 8 8 8

음 성

8 8 8 8

8 8 8 8 8

음 성

8888

음 성 음

& 유

88	88	38	8	38	ខ្ល	នួន	8	88	88	86	88	88	8	ក្តក	នួន	X X	X P P	XX	Z Z	X P P	ž	P X	2 2	\$ B \$	E E E	\$ 8 \$???	X B S	¥ 5	ξ ξ	RESULT ADQ860 ID A	망	\$	뫄	Ś	
potentiating effect of the above protein; (13) a method of therapeutically treating a mammal having a cancerous tumour comprising	the growth of the cell is at least in part dependent upon a growth	the composition of matter contained within the container; (12) methods of	with a carrier; (11) an article of manufacture comprising a container and	composition of matter comprising the above (chimeric) polypeptide,	binding organic molecule that binds to the above polypeptide; (10) a	for producing the antibody; (8) an isolated oligopeptide that binds to	an isolated antibody that binds to the above polypeptide; (7) a process	naving at least 80% identical to (a) or (b); (5) a chimeric polypeptide	length coding region of the above nucleotide sequences; or (c) a sequence	nucleotide sequences; (b) an amino acid sequence encoded by any of the above	a process for producing a polypeptide; (4) an isolated polypeptide	(c). Also described: (1) an expression vector comprising the above nucleic acid; (2) a host cell comprising the above expression vector: (3)	sequence identity to (a)-(c); or (e) a sequence that hybridises to (a)-	sequences (see SEQ ID NO:1 to 4622); (b) the full-length coding region of (a); (c) the complement of (a) or (b); (d) a segmence that has 80%	C The present invention describes an isolated tumour-associated antigenic	Claim 1; SEQ ID NO 2904; 5504pp; English.	New nucleic acid molecule and encoded polypeptide, for diagnosing, preventing or treating cell proliferative disorders such as cancer.	WPI; 2004-534300/51.	Wu TD, Zhou Y;	(MUTD/) WU T D. (ZHOU/) ZHOU Y.	GENEN	18-OCT-2002; 2002US-0418988P.	15-OCT-2003; 2003WO-US029126.	22-JUL-2004.	WO2004060270-A2.	Homo sapiens.	human; tumour-associated antigenic target; TAT; cytostatic; gene therapy; cancer; cell proliferative disorder; gene; ss.	Human tumour-associated antigenic target (TAT) cDNA sequence #2904.	07-OCT-2004 (first entry)	ADQ86032;	ULT 7 86032 ADQ86032 standard, cDNA, 2372 BP.	2341 CAAATGTTTAATAAAAAAAAAAAAAAAA 2371	2360 CAAATGTTTAATAAAAAAAAAAAAAAAAAA 2390	2281 TCTTAACTGTAACAATGTTCATGGTTGTTGTTTTTTTTTT	2300 TCTTAACTGTAACAATGTTCATGGTTGTGATGTTTTTTTT	2221 TITAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATTGTGGAGAACCAAGAGGGCC 2280

문 · 원

밁

និនិនិនិនិនិនិនិនិនិនិនិនិ cells that express the above protein; (14) a method of determining the presence of a protein in a sample suspected of containing the protein described above; (15) methods of diagnosing the presence of a tumour in a mammal; (16) a method for treating or preventing a cell proliferative disorder associated with increased expression or activity of the above protein; and (17) a method of binding an antibody, oligopeptide or organic molecule to a cell that expresses the protein described above. The TAT sequences have cytostatic activities, and can be used in gene. therapy. The composition and methods are useful for diagnosing, preventing or treating cancer. The composition is also used for preparing a medicament for the therapeutic treatment or diagnostic detection of a cell proliferative disorder or cancer. The present sequence represents a human TAT CDNA sequence from the present invention.

Sequence 2372 BP; 628 A; 589 C; 668 G; 487 T; 0 U; 0 Other;

Query Match Best Local Simi Matches 2370;

Similarity

98.7**%**; 99.9**%**;

Score 2357.8; Pred. No. 0; 0; Mismatches

DB 13; Length

Conservative

0

2

Indels

<u>,</u>

Gaps

541 781 721 661 109 601 541 481 481 421 421 361 361 301 301 241 241 181 181 121 121 61 61 بر CTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTC TGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCCAAACTGGATC CAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTA CAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGTATGGACAGCAGAGTAGCTA ACCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG ACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGC ACAGAGTAACTACAGTTATCCCCCAGGTACCTGGGAGCTACCCCCATGCAGCCAGTCACTGC TGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGG TGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGG CTATGGGCAGCAGCCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCAC CTATGGGCAGCAGCCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCAC CACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC CACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCAC CAGCCAGCCTGTCCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCAC TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATA GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCCTATGGGCAGACCGCCTA TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAGCTATGGAACCTATGGAACA CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAC AGAGGGAGACGTTGAGAGAACGAGGAGGAAGGAAAATGGCGTCCACGGATTA TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATA TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAC AGAGGGAGACGGTTGAGAGAACGAGGAGGAGGAGAAAATGGCGTCCACGGATTA 840 60 780 780 720 720 660 660 600 480 180 120 60 600 540 540 480 420 420 360 360 240 240 180 120

밁 S 밁 र् 밁 δ

ঠ 문

밁 ક 밁 S В S 밁 S 맑 S 밁 S

```
1321
                                                                                1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                   1801
                                                                                                                   1741
                                                                                                                                                 1741
                                                                                                                                                                                  1681
                                                                                                                                                                                                                                                     1621
                                                                                                                                                                                                                                                                                  1621
                                                                                                                                                                                                                                                                                                                     1561
                                                                                                                                                                                                                                                                                                                                                                                    1501
                                                                                                                                                                                                                                                                                                                                                                                                                   1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1201
                  1861
                                                                                                                                                                                                                   1681
                                                                                                                                                                                                                                                                                                                                                    1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
CCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGAT
                                                                                                                                                                                CATGGGAGGCCGTGGAGAGAGAGAGAGGCTTCCCTCCAAGAGGAGCCCCCGGGGTTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGGTGGAATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGAGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTCCGACAGGACCCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA
                                                                                                                                       TGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGG
                                                                                                                                                                                                                                                  TCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTC
                                                   AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA
                                                                                                                   TGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGG
                                                                                                                                                                                                                                                                          TCCGGGTTGTGGAAACCÁGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCC
                                                                                                                                                                                                                                                                                                                                                     AGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAA
                                                                                                                                                                                                                                                                                                                                                                                  CATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCCATGGATGAAGGACCAGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGACGCGGTGGAATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGT
                                                                                                                                                                                                                                                                                                                                                     1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1380
                                                                                  1860
                                                                                                                   1800
                                                                                                                                                                                  1740
                                                                                                                                                                                                                   1740
                                                                                                                                                                                                                                                                                    1680
                                                                                                                                                                                                                                                                                                                                                                                    1560
                                                                                                                                                                                                                                                                                                                                                                                                                   1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1020
                                                   1860
                                                                                                                                                 1800
                                                                                                                                                                                                                                                   1680
                                                                                                                                                                                                                                                                                                                     1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840
```

중 음

S 밁 S 밁 S 몽 S 밁 Ş 밁 S 몽 ঠ 문 ঠ 밁 δ 片 S 밁

```
δ
                                 밁
                                             5
                                                                   밁
                                                                                S
                                                                                                      밁
                                                                                                                    ð
                                                                                                                                       밁
                                                                                                                                                     5
                                                                                                                                                                       문
                                                                                                                                                                                         ঠ
                                                                                                                                                                                                               문
                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                    문
밁
                                                                                                      2161
2341
                                 2281
                                                                                                                                                                          2041
                                                                                                                                                                                            2041
                                                  2281
                                                                     2221
                                                                                                                                                                                                                                                                                    1861
                                                                                                                                                                                                                                                                                    CCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCCTGGGGGGGCCCCCCTGGACCTTTGAT
                                                                                                                                        GGAACAGATGGGAGGAAGAAGAAGGACGTGGAAGAACATGGATAAAGGCGA
                                                                                                                                                                                                                                                           GGAACAGATGGGAGGAAGAAGAGAGGAGGACGTGGAAGAAAAATGGATAAAGGCGA
TTTTTTAAAATAAAATTCCAAATGTTTAATAA 2373
                                 AAAAATGGTTGTTTAAGACTTTAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATT
                                                                                                       GACTACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATA
                                                                                                                                                                                      GACTACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATA
                                                                                                                                                                                                               GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGAGCTGCATT
                                                                                                                                                                                                                          GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGAGACTTC
                                                                                                                                                                                             2100
                                                                                                                                                                                                                2040
                                                                                                                                                                                                                                                  1980
                                                                                                                                                                                                                                                                   1980
                                                                                                                                                                                                                                                                                     1920
                                                   2340
                                                                     2280
                                                                                     2280
                                                                                                        2220
                                                                                                                         2220
                                                                                                                                          2160
                                                                                                                                                           2160
                                                                                                                                                                            2100
                                                                                                                                                                                                                                2040
```

AAS70647 standard; cDNA; 2388

₽P

13-FEB-2002 (first entry)

DNA encoding novel human diagnostic protein #6451.

Human; chromosome food supplement; m medical im j; gene mapping; gene therapy; imaging; diagnostic; genetic ; ; forensic, disorder; 88

Homo sapiens.

WO200175067-A2

30-MAR-2001; 2001WO-US008631

31-MAR-2000; 2000US-00540217. 23-AUG-2000; 2000US-00649167.

(HYSE-) HYSEQ INC.

Drmanac RT, Liu C, Tang ĭ

WPI; 2001-639362/73. P-PSDB; ABG06460.

RESULT 8
AAS70647
ID AAS7
XX AAS7
XX AAS7
XX AAS7
XX Huma
XX Homo
XX H diagnostics, for responsible for the biodiversity. New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess

Claim 1; SEQ Ħ ğ 6451; 103pp; English 밁 S 밁 ঠ 밁 S

S

유

밁 5 망 S 밁

```
Ś
                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                   ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                र्
                             밁
                                                         Ś
                                                                                             밁
                                                                                                                  5
                                                                                                                                                         용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CC The invention relates to isolated polynucleotide (I) and polypeptide (II) CE sequences. (I) is useful as hybridisation probes, polymerase chain (C reaction (PCR) primers, oligomers, and for chromosome and gene mapping, CC and in recombinant production of (II). The polynucleotides are also used (I n diagnostics as expressed sequence tags for identifying expressed (C genes. (I) is useful in gene therapy techniques to restore normal (C useful for generating antibodies against it, detecting or quantitating a CC useful for generating antibodies against it, detecting or quantitating a CC polypeptide in tissue, as molecular weight markers and as a food (C supplement. (II) and its binding partners are useful in medical imaging (C involving aberrant protein expression or biological activity. The CC involving aberrant protein expression or biological activity. The CC diagnostics, forensics, gene mapping, identification of mutations (C responsible for genetic disorders or other traits to assess biodiversity (C and to produce other types of data and products dependent on DNA and (C coding sequences of the invention. Note: The sequence data for this C gatent did not appear in the printed specification, but was obtained in CC electronic format directly from WIPO at CC ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 2354; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2388 BP; 628 A; 599
                               619
                                                              602
                                                                                             559
                                                                                                                          542
                                                                                                                                                           499
                                                                                                                                                                                          482
                                                                                                                                                                                                                       439
                                                                                                                                                                                                                                                     423
                                                                                                                                                                                                                                                                                     379
                                                                                                                                                                                                                                                                                                                   363
                                                                                                                                                                                                                                                                                                                                                319
                                                                                                                                                                                                                                                                                                                                                                               305
                                                                                                                                                                                                                                                                                                                                                                                                              259
                                                                                                                                                                                                                                                                                                                                                                                                                                            246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          139
 662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    70
                                                                                                             CAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCA
                                                                                                                                                                             GAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGA
                                                                                                                                                                                                                                                                                                       CCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCT
                                                                                                                                                                                                                                                                                                                                                CAGCCTGTCCAGGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCAA
                                                                                                                                                                                                                                                                                                                                                                  CAGCCTGTCCA-GGGGTATGGCACTGGTGCTTATGATACCACCACCACTGCTACAGTCACC-A
                                                                                                                                                                                                                                                                                                                                                                                                                                CTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCCAGGCATACA-GC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGCACAGACCACCCAGCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGCACAGACCACC---CAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGGACGTTGAGAGAACGAGGAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGACGTTGAGAGAACGAGGAGGAAGGAGAAAAATGGCGTCCACGGATTACAGTACCTA
AGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTAT
                                                    CCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGC
                                                                                                                                                                                                                       ATGGGCAGCAGCCAGCCACTTGCCCTACAAGAACCGAGGATTGAAAACAAGCCCACT
                                                                                                                                                                                                                                                   ATGGGCAGCAGCCAGCCACTGCACCTACAAGACCGCAGGA-TGGAAACAAGCCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; 668 G; 493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 2281.2;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 2388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                               362
                               678
                                                              661
                                                                                             618
                                                                                                                        601
                                                                                                                                                         558
                                                                                                                                                                                        541
                                                                                                                                                                                                                       498
                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                 422
                                                                                                                                                                                                                                                                                                                                                378
                                                                                                                                                                                                                                                                                                                                                                                                              318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  69
                                                                                                                                                                                                                                                                                    438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
              S
                                             밁
                                                                         Ś
                                                                                                        밁
                                                                                                                                    8
                                                                                                                                                                      밁
                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
              1742
                                               1699
                                                                                                           1639
                                                                                                                                         1622
                                                                                                                                                                        1579
                                                                                                                                                                                                       1562
                                                                                                                                                                                                                                    1519
                                                                                                                                                                                                                                                                   1502
                                                                                                                                                                                                                                                                                                  1459
                                                                                                                                                                                                                                                                                                                                1442
                                                                                                                                                                                                                                                                                                                                                               1399
                                                                                                                                                                                                                                                                                                                                                                                              1382
                                                                                                                                                                                                                                                                                                                                                                                                                             1339
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTT
                GGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGGA 1801
                                                              AAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGT 1741
                                                                                                                             CCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCA 1681
                                                                                                                                                                                          GGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAAT
                                                                                                                                                                                                                                      ATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGA
                                                                                                                                                                                                                                                        ATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCGA 1561
                                                                                                                                                                                                                                                                                                                           CCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCCATGGGTCGC
                                                                                                                                                                                                                                                                                                                                                               AAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATG
                                                                                                                                                                                                                                                                                                                                                                                 AAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                             GTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGAGGGGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TACAGCCAAGCTCCAAGTCAATATAGCCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTAT
                                                                                                           CCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCA
                                                                                                                                                                         GGGAACCCCTCTGGAGGAAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAAT
                                                                                                                                                                                                                                                                                                    CCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACCCATGGATGAAGGACCAGATCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGACGCGGTGGAATGGGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1698
                                                                                                                                                                        1638
                                                                                                                                                                                                       1621
                                                                                                                                                                                                                                      1578
                                                                                                                                                                                                                                                                                                  1518
                                                                                                                                                                                                                                                                                                                                 1501
                                                                                                                                                                                                                                                                                                                                                               1458
                                                                                                                                                                                                                                                                                                                                                                                              1441
                                                                                                                                                                                                                                                                                                                                                                                                                             1398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1218
```

978

961 918 901 858 841 781

á

```
RESULT 9
AAS62623/c

ID AAS62623;

XX
AS62623;

XX

AC AAS62623;

XX

DT 14-FEB-2002 (first of the color of t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                    06-APR-2000; 2000US-0195604P
                                                                                                                                                                                                     29-MAR-2001; 2001WO-US010485
                                                                                                                                                                                                                                                                                                                                                                                                                       Human secreted protein; hyperproliferative disorder; autoimmune disorder; immune deficiency disorder; blood disorder; inflammatory disorder; infectious disorder; gene therapy; antimicrobial; hepatotropic;
                                                                                                                                                                                                                                                                                                                                                                                                   immunosuppressive; antirheumatic; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1922
                                                                                                      GENETICS INST INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTTTTAAAATAAATTCCAAATGTTTAAT 2388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTTTTAAAATAAAATTCCAAATGTTTAAT 2371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAATGGTTGTTTAAGACTTTAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTACCAGATTTATTTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTACCAGATITTATTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGAGACCCCGCCAGAGCTGCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAAGGACCTGGAAAAAATGGATAAAGGCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGA 1818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Clark HF,
                              Graham JR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              #410 encoding novel human secreted protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entry)
                                                     Fechtel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2273
                                                   <u>,</u>,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВP
                                                   Agostino
                                                     <u>₹</u>
                                                     Howes
                                                     SH,
                                                     Resnick
                                                     꼰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1981
```

WPI; 2002-010900/01

polynucleotides encoding secreted ma, HIV and Crohn's disease. proteins useful for treating e.g.

Page 291; 391pp; English

The present invention relates to the isolation of novel cDNA sequences which encode human secreted proteins. The cDNA sequences have been controlled from a variety of human tissues. The invention also provides a method for producing proteins from these polynucleotide sequences. The proteins are useful for identifying compounds that modulate their cativity and production, and the cell is also useful for identifying compounds that modulate expression of the polynucleotide sequences compounds that modulate expression of the polynucleotide sequences concoding the secreted proteins. The sequences of the invention are useful for treating diseases such as hyperproliferative disorders (e.g. cancer), immune deficiency disorders (e.g. severe combined immunodeficiency (SCID)), autoimmune disorders (e.g. severe combined immunodeficiency (e.g. thrombocytopaenia), inflammatory disorders (e.g. arthritis) and infectious disorders (e.g. hepatitie). The polynucleotide sequences of the invention are also useful in gene therapy. AAS62214-AAS62838 crepresent the cDNA sequences of the invention that encode for novel human represent the cDNA sequences of the invention that encode for novel human represents the cDNA sequences of the invention that encode for novel human represents the cDNA sequences of the invention that encode for novel human represents the cDNA sequences of the invention that encode for novel human represents the cDNA sequences of the invention that encode for novel human represents the cDNA sequences of the invention that encode for novel human represents the cDNA sequences of the invention that encode for novel human represents the cDNA sequences of the invention that encode for novel human represents the cDNA sequences of the invention that encode for novel human represents the cDNA sequences of the invention that encode for novel human represents the cDNA sequences of the invention that encode for novel human represents the cDNA sequences of the invention that encode for novel human represents the cDNA sequences proteins

Sequence 2273 BP; 477 A; 636 Ç 562 G; 598 T; 0 U; 0 Other;

Matches 2259; Query Match Best Local Similarity

Conservative

0; Mismatches

Indels

54;

Gaps

91.2%;

Score 2179.6; Pred. No. 0;

В 9; 6

Length 2273;

Ś 밁 Ś 밁 S 밁 Ś 밁 Ś 밁 Ş 밁 S 8 Ś 밁 á 밁 Ś 밁 Ś 1728 1968 2028 2088 2148 2208 2268 1668 1788 1848 1908 642 582 522 462 402 342 282 222 162 102 42 CGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCT CCACCACTGCTACAGTCACCACCACCCAGGCCTCTATGCAGCTCAGTCTGCATATGGCA CAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATA GCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAA CTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAA AAGGTGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTG ANATOGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTG CGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCT CCATGCAGCCAGTCACTGCACCTCCATCCTACCTACCAGCTATTCCTCTACACAGC CCATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGC AGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACC AGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACC CCACCACTGCTACAGTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCA CAACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATA CCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTC CCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTC GCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAA CTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAA 1909 1969 341 101 1609 1669 1729 1789 521 1849 461 401 2089 2209 641 581 2029 2149 161 701 281 221

```
1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1062
                              1722
                                                                                                                                              1602
                                                                                                                                                                                                      1542
                                                                                                                                                                                                                                                                1482
                                                                                                                                                                                                                                                                                                                       1422
                                                                                                                                                                                                                                                                                                                                                                                1362
                                                                                                                                                                                                                                                                                                                                                                                                             1011
                                                                                                                                                                                                                                                                                                                                                                                                                                          1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1608
                                                                                      1662
                                                                                                                711
   642
                                                           651
                                                                                                                                                                           771
                                                                                                                                                                                                                                   831
                                                                                                                                                                                                                                                                                             891
                                                                                                                                                                                                                                                                                                                                                       951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  702
                                                                                                                                                                                                                                                                                        CCCGTGAGGGCAGAGGCATGCCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTC
               GAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGT
                                                                                                                                    GAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACCTTCGCCTGGAGAACAGAGT
                                                                                                                                                                        GAGGACCCCGGGGTTCCCGAGGGAGACCCCTCTGGAGGAGGAGGAACGTCCAGCACCGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                           CACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTACGGGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTT
                                                                              GCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGGCCCCCGG
                                                                                                                                                                                                     GAGGACCCCGGGGTTCCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTG
                                                                                                                                                                                                                                                  CTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGGATAGAGGAGGCTTCCCTCCAA
                                                                                                                                                                                                                                                                                                                                                                   TTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCCGGGGTGGTCTGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTACCTGGACAAGGAAACAGGAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACGCGGTGGAATGGGCACGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGGCAGGGGAAGAGGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTT
 GTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGG
                                                           GCAACCAGT-
                                                                                                                                                                                                                                                                                                                                                  TTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                            CACCCACTGCCAAGGCTGCCGTGGAATGGTTTGTTGGGAAAGATTTTCAAGGGAGCAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGGCAGGGGAAGAGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACGCGGTGGAATGG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -GCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCA
                            1781
                                                                                                                                                                                                                                                             1541
                                                                                                                                                                                                                                                                                                                                                                             1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1121
                                                                                                                                             1661
                                                                                                                                                                                                     1601
                                                                                                                                                                                                                                                                                                                       1481
                                                                                                                                                                                                                                                                                                                                                                                                                                         1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1549
583
                                                        643
                                                                                                                 652
                                                                                                                                                                                                                                  772
                                                                                                                                                                                                                                                                                                                                                    892
                                                                                                                                                                                                                                                                                                                                                                                                             952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      941
                                                                                                                                                                          712
                                                                                                                                                                                                                                                                                           832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                881
```

밁

श 밁 र् 밁 ঠ 밁 5 밁 र् 밁 5 밁 र्

र्

```
RESULT 10
AAS62262/c
ID AAS6222
XX AAS622
XX AAS622
XX AAS622
XX LATER
AC CANA B
AC CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAS62262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAS62262 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGCATGCTCAGTATCATTGTGGAGAACCAAGAGGGCCTCTTAACTGTAACAATGTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTTGTGATGTTTTTTTTTTTTTTAAAATAAATTCCAAA 2363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTTTTTTCTTCCTTCTTTTAAAAATGGTTGTTTAAGACTTTTAACAATGGGAACCCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTATITTTCACCATTIGIGAAGAAACATTAAAACAAGTTAAAIGGTAGTGTGCGGAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTATAATTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTATAATTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACCCCGCAGAGCTGCATTGACTACCAGATTTATTTTTAAACCAGAAAATGTTTTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTTTTCTTCCTTCTTTTAAAAATGGTTGTTTAAGACTTTAACAATGGGAACCCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTATTTTCACCATTTGTGAAGAAACATTAAAACAAGTTAAATGGTAGTGTGCGGAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACCCCGCAGAGCTGCATTGACTACCAGATTTATTTTTTAAACCAGAAAATGTTTTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAAGAAGACGTGGAGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGGTGGCCGGGGCATGGACCGAGGTGGCTTTTGGTGGAGGAAGACGAGGTGGCCCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #49 encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              novel human secreted protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                523
```

Human secreted protein; hyperproliferative disorder; autoimmune disorder; immune deficiency disorder; blood disorder; inflammatory disorder; infectious disorder; gene therapy; antimicrobial; hepatotropic; immunosuppressive; antirheumatic; ss.

WO200177291-A2

18-OCT-2001.

29-MAR-2001; 2001WO-US010485

06-APR-2000; 2000US-0195604P

밁 Ś 밁 ঠ 밁 र् 밁 ঠ 밁 Ş 밁 र् 밁 ક 밁 र् 밁

र्

밁

ঠ

밁

GENETICS INST INC

Wong GG, Clark HF, Gulukota K, Graham Fechtel K, Agostino 3 Howes HS, Resnick 몽

WPI; 2002-010900/01

1333

1213 992 1273 932 1393

812

872

```
The present invention relates to the isolation of novel cDNA sequences which encode human secreted proteins. The cDNA sequences have been derived from a variety of human tissues. The invention also provides a method for producing proteins from these polynucleotide sequences. The proteins are useful for identifying compounds that modulate their cactivity and production, and the cell is also useful for identifying compounds that modulate expression of the polynucleotide sequences compounds that modulate expression of the polynucleotide sequences concoding the secreted proteins. The sequences of the invention are useful for treating diseases such as hyperproliferative disorders (e.g. cancer), immune deficiency disorders (e.g. severe combined immunodeficiency (SCID)), autoimmune disorders (e.g. multiple sclerosis), blood disorders (e.g. thrombocytopaenia), inflammatory disorders (e.g. arthritis) and infectious disorders (e.g. hepatitis). The polynucleotide sequences of the invention are also useful in gene therapy. AAS62214-AAS62838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Simi
Matches 2154;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New polynucleotides encoding secreted proteins useful for treating asthma, {\sf HIV} and {\sf Crohn's} disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2176 BP; 413 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          secreted proteins
                                           1572
                                                                                                                                                                                                                                                                                                 1751
                                                                                                                                                                                                                                                                                                                                                                                    1811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2051
                                                                                                                               1632
                                                                                                                                                                                                                1692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2111
                                                                                   633
                                                                                                                                                                                                                                                                                                                                           453
                                                                                                                                                                                                                                                                                                                                                                                                                          393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1; Page 100; 391pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                     GGAGCTACCCCATGCAGCCAGTCACTGCACCTCCTACCCTACCCAGCTATTCCT
                                                                                                                                                                                                                                                                                                                              CAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATACTACTCCAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGGTGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGCAGC
    CGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTC
                                                                    CTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAAC
                                                                                                                                                                                                                  GTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTG
                                                                                                                                                                                                                                                                                                   CAAGACCGCA-GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                            CTTATGATACCACCACTGCTACAGTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTATGATACCACCACTGCTACAGTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT
                                                                                                                               GGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTACCAGCTATTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  89.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 2141.8;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; 563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G; 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0 Other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    e.g.
                                                                                                                               1573
                                                                                                                                                                                                                1633
                                                                                                                                                                                                                                                                                                   1693
                                                                                                                                                                                                                                                                                                                                                                                    1752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2112
                                                                                                                                                                                                                                                                                                                                                                                                                            452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                332
                                                                                                                                                                                                                                                                                                                                           512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                밁
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       멹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                             밁
                                                                                                  δ
                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1512
                                                                                                                                                                                                                                                                                                                                                              1533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1332
                                                                                                                                                                                                                                                                             1593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    873
                                                                                                                                                                                                                                                                                                                       672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGAAGATTTTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                       CGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTG
                                                                                                                                                                             GAACAGAGTGCAACCAGTGTAAGGCCCCAAAGGCCTGAAGGCTTCCTCCCGCCACCCTTTC
                                                                                                                                                                                                                                      ACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGA
                                                                                                                                                                                                                                                                ACCGAGCTGGAGACTGGCAGTGTCCCCAATCCGGGTTGTGGAAACCAGAACCTTCGCCTGGA
                                                                                                                                                                                                                                                                                                                                                            TCCCTCCAAGAGGACCCCGGGGTTCCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAAACTGGGCAACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTOTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTATGGGCAGGAGTCTGGAGGATTTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAGCAGCAGCTACGGGCAGAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTG
```

1652

613

1592

1772

493

1712 553 1532

673

1472

733

1412

793

1352

1292

913

1232 1033

973

1093 1112 1153 1052

S

맑 á 片 S 밁 Ś

S 밁 Ś 片 δ В S 밁 ş 밁 Ś 밁 ş 밁 S 밁

```
RESULT 11
ACN37537
ID ACN37537
XX ACN37
XX ACN37
XX ACN37
XX Tumou
XX Tumou
XX Tumou
XX Tumou
XX Centi
XX Cchron
XX Cchron
XX Chron
XX Chron
XX Chron
XX Homo
XX CETI
XX Hom
XX CETI
XX Hom
XX CETI
XX Hom
XX CETI
XX Hom
XX CETI
XX Hom
XX CLail
XX The
CC Overy
CC Overy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tumour-associated antigenic target; TAT; human; overexpression; citumour; diagnosis; cell proliferative disorder; breast cancer; colorectal cancer; lung cancer; ovarian cancer; liver cancer; central nervous system cancer; bladder cancer; pancreatic cancer; cervical cancer; melanoma; leukaemia; hybridisation probe; chromosome identification; chromosome mapping; gene mapping;
The invention relates to human tumour-associated antigenic target (TAT) polypeptides, and their related nucleic acids. The TAT polypeptides are overexpressed in cancer tissues compared to normal tissues, and may thus serve as effective targets for the diagnosis and treatment of cancer in
                                                                                                                                    New tumor-associated antigenic target polypeptides and nucleic useful in preparing a medicament for treating or detecting a proliferative disorder, e.g. breast, lung, colorectal, ovarian
                                                                                                                                                                                                                                                                                                                                02-OCT-2002; 2002US-0414971P
                                                                                                                                                                                                                                                                                                                                                                29-SEP-2003; 2003WO-US028547.
                                                                                                                                                                                                                                                                                                                                                                                                                                     WO2004030615-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tumour-associated antigenic target (TAT) cDNA DNA323971,
                                                                                                                                                                                                                                                              Ġ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1833
                                                                                                                                                                                                           2004-347921/32.
DB; ABM80197.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   72
                                                                                                                                                                                                                                                           Zhang
                                                                                        SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGTACTTTAGTATTTTCACCATTTGTGAAGAAACATTAAAACAAGTTAAATGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTTTTAAATTTATAATTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTTTTAAATTTATAATTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cancer or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CIGTACTTIAGTATTTTCACCATTTGTGAAGAAACATTAAAACAAGTTAAATGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCCTGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGGCTTCCGTGGTGGCCGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGGCTTCCGTGGTGGCCGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTG 1892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCTCATGGATCGTGGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                        ㅂ
                                                                                                                                                                                                                                                             Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cytostatic; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first
                                                                                        ĕ
                                                                                                                                                                                                                                                              Zhou
                                                                                      490;
                                                                                                                        tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entry)
                                                                                                                                                                                                                                                              ĸ
                                                                                    7273pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              쁑
                                                                                      English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ħ
                                                                                                                                                                         acids,
                                                                                                                                        ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NO:490.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              313
```

á

S

밁

S

밁 Ś 뭐 δ

밁

```
CC mammals. The invention also relates to nucleic acid and polypeptide CC sequences at least 80% identical to the TAT nucleic acids and CC polypeptides; expression vectors and host cells comprising a TAT nucleic acid; an antibody specific for a TAT polypeptide; a peptide or organic CC acid; an antibody specific for a TAT polypeptide; fusion proteins comprising a TAT nucleic acids, and methods and compositions for the treatment or CC diagnosis of cancer in mammals. TAT polypeptides, nucleic acids, CC antibodies, antagonists, binding molecules and compositions are useful CC for diagnosing or treating a cell proliferative disorder associated with increased TAT expression, particularly cancers such as breast cancer, CC colorectal cancer, fung cancer, ovarian cancer, liver cancer, bladder CC cancer, pancreatic cancer, cervical cancer, cancers of the central CC cancer, pancreatic cancer, cervical cancer, cancers of the central CC cancer, pancreatic and leukaemia. TAT nucleic acids may further be CC used as hybridisation probes, in chromosome and gene mapping, in CC chromosome identification and in gene therapy. The present sequence cropresents a TAT nucleic acid of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TAT nucleic
                                                                                                                                                                                                                                                                                                         with
```

Sequence 2177 ВP; 602 ₽, 539 C; 605 G; 431 T; 0 ď; 0 Other

Query Match Best Local Sim Matches 2101;

Similarity

85.1%; 96.4%;

Score 2033.4; Pred. No. 0; 0; Mismatches

ВB 76; 13;

Length

Indels

2;

Gaps

Ν

Conservative

0;

731 601 611 541 551 481 491 421 431 361 371 301 311 241 251 181 191 121 131 61 71 1 CAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAA TACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCT TACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCC CAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGT GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAG GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAG GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCT GCACAGACCCACCCAGGCATATGGGCAACAAAGCTTATGGAACCTATGGACAGCCCACTGAT AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAGCTCAAGGATAT GGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCCGTCCACGGATTACAGTACCTAT TACCCTCCTACCAGCTATTCCTCTACACAGCCAACTAGTTATGATCAGAGCAGTTACTCT TGCAGTTATCCCCAGGTACCTGGGAGCTACTCCATGCAGCCAGTCACCGCACCTCCATCC GCCTCCTATGCAGCTCAATCTGCATATGGCACTCAGCCTGCTTATCCAGCTTATGGGCAG GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCAG GTCAGCTATACCCAGGCTCAGACCACTGCAATCTATGGGCAGACCGCCTATGCAACTTCT AGCCAAGCTGCAGCGCAGCCAGGCCTACAGTGCTTACAACACCCCAGCCCACTCAAGGATAT GGACGTTGAGAGAACGAGGAGGAGAGAGAAAATGGCATCCATGGATTACAGTACCTAT 60 720 730 660 670 600 370 310 250 190 120 610 540 550 480 490 420 430 360 300 240

S 밁

δ 닭 δ 밁 ð 밁 S 밁 뭐

S 밁 Ş 밁

Ś

```
1571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                           1741
                                                                                                                                                                                                                                                                                                                                                                                                                  1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1031
               1811
                                                                                                      1751
                                                                                                                                                   1681
                                                                                                                                                                                               1691
                                                                                                                                                                                                                                          1621
                                                                                                                                                                                                                                                                                   1631
                                                                                                                                                                                                                                                                                                                              1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACAATGTGACTCTAGATGATCTGGTAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAAGTTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAGGCATGAGCAGAGGTGGGCGGGGGAGGACGCGCGGTGGAATGGGCAGCGCTGGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGAGGGGGATTTGATCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCCGGACTAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCCGGACCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCAGCAGCAGAGTTCATTCCGACAG
GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC
                                                                                      GGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGA
                                                                                                                                                                          GGCTTCCTCCCGCCACCCTTTCCGCCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                 GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAA 1690
                                                                                                                                                                                                                                                                                                                                                       TCTGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                CGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCCGAGGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ANAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGGCATGAGCAGAGGTGGGCCGGGGAGGAGGATGCGGTGGAATGGGCAGCGCTGGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGAACCGGAGCATGAGTGGCCCTGATAACTGGGGCAGGGGAAGAGGGGGGATTTGATCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTCCAAGTCAGTATAGCTAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCTGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCAGCTATGGGCAGCTGCCTCCCACTAGTTACCCCACCCCAAACTTGATCCTACAGCCAA
                                                                                                                                                   GGCTTCCTCCCGCCACCCTTCCCACCCCCGGGTGGTGATCATGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                          GGAAACCAGAACTTCGCCTGGAGAACAGAGAGCAACAAGTGTAAGGCTCCAAAGCCTGAA
                                                                                                                                                                                                                                                                                                                                TCTGGAGGAGAAACGTCCAGCACCAAGCTGGAGACAGGCAGTGTCCCAATCCGGGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGGAGGAGATAGAGGAGGCCTCCCTCCAAGAGGACCCCAGGGTTCCCGAGGGAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCTGCGGAGGTCCAGGAGGCCCAGGAAGTCCTGGGGGACCCATGGGTCACATGGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAGTGAACAGTATGCAGGGTATGCCACCCCATGAGGGCAGAGGGATGCCACCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCTCTTGCTCGGAAGAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAGGTGATGCCACAGTGTCCTGTGAAGACTCACCTACTGCCAAAGCTGCCGTGGAATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u> AACAAGAGAACTGAGCAACCCATGATCCACACCTACCTGGACAAGGAAACAAGAAAGCCC</u>
                                                               GGCATGTGGGGAGGAAGAGGTGGCCTCATGGATCATGGTGGTCCCGGTGGAATGTTCAGA
                                                                                                          1810
                                                                                                                                                                                                                                                                                                                                1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1030
                  1870
                                                                                                                                                                                                                                          1680
                                                                                                                                                                                                                                                                                                                                                                                                                     1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1200
                                                               1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
```

δ

밁 S 밁 ঠ 밁 Ş 밁

S

S

밁

밁

S 밁 밁 S 밁

S

밁 S

S

S 밁 δ 용

片

```
닭
                                                                         5
                                                                                                             밁
                                                                                                                                Ś
                                                                                                                                                               밁
                                                                                                                                                                                             Ś
                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                           S
                 S
                                                                                                                                                                                                 1991
                                                                                                                                                                                                                             1919
                          2171
                                                     2099
                                                                                                              2039
                                                                                                                                         2051
                                                                                                                                                                     1979
                                                                                                                                                                                                                                                                                                              1871
                TAAAACAAGTTAAATGGTA
                                                      CAACATTATGATTATTCTTTCTCTGTACTTTAGTATTTTTCACCATTTGTGAAGAAACAT
                                                                      CAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGTGAAGAAACAT
                                                                                                                                TTTATTTTTTAAACCAGAAAATGTTTTAAATTTTATAATTCCATATTTATAATGTTGGCCA
                                                                                                                                                                      GAGCGCAGAGATCAGCCCTACTAGATGCAGAGAACCCGCAGAGCTGCATTGACTACCAGA
                                                                                                                                                                                          GAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATTGACTACCAGA
                                                                                                                                                                                                                             GGAGGAAGAAGAGGACGTGAAGGACCTGGAAAAAACGGATAAAGGCGAGCACTGTCAG
                                                                                                                                                                                                                                                      GGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAG
                                                                                                                                                                                                                                                                                     TTTGGTGGAGGAAGACAAGGTGGCCCTGGGGGGCCCCC-GGACCTTTGATGTAACCAATG
                                                                                                                                                                                                                                                                                                    TTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGGGCCCCTGGACCTTTGATGGAACAGATG
                                                                                                              TITATTTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATAATGTTGGCCA
                          2189
2177
                                                                                                                                                                      2038
                                                                                                                                                                                                                               1978
                                                                                                                                                                                                                                                                                                                 1930
                                                         2158
                                                                                    2170
                                                                                                                2098
                                                                                                                                            2110
                                                                                                                                                                                                   2050
                                                                                                                                                                                                                                                         1990
                                                                                                                                                                                                                                                                                     1918
```

```
ARISULT 12
ARIS9383
ID ARIS93
AC ARIS9
AC ARISS

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mouse; ischaemia; compressive ischaemia; occ
vasospastic ischaemia; ischaemic condition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABI99383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200188188-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mouse ischaemic condition related cDNA sequence SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     occlusive ischaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ischaemic disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NO:288
```

88.

22-NOV-2001.

18-MAY-2001; 2001WO-JP004192

18-MAY-2000; 2000JP-00145977

(-INYU) VIND NIHON SCHOOL JURIDICAL PERSON

Ishikawa ج Asai S, Takahashi Y, Nagata T,

2002-034733/04.)B; ABB57126.

Examining the ischemic condition (e.g. occlusive ischemia) by measuring expression levels of particular genes defined in the specification or by determining the expression profile of a gene group comprising these

2. Page 794-799; 2690pp; English

The present invention describes a method for examining ischaemic conditions, comprising measuring the expression levels of particular genes (I) in a test sample or determining the expression profile of a gene group in the sample comprising genes selected from (I). The method is useful for examining the ischaemic condition (e.g. compressive ischaemia, occlusive ischaemia or vasospatic ischaemia) by measuring expression levels of particular genes (AB19902 to AB199912, encoding the protein sequences in AB857020 to AB19902 to AB199012, becoming the protein sequences in AB857020 to AB857374) or by determining the expression profile of a gene group comprising these genes. The expression levels or expression profiles produced by these genes are used as an expression the

δ

밁 8 밁

1801

8 片 Ś 밁 Ś 밁

문

```
8 8 8 8
                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                         닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
             ð
                            밁
                                                   र्
                                                                          문
                                                                                          श्
                                                                                                                    문
                                                                                                                                    중 유
                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             នន្តន្តន្តន
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 2039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            indicator when screening for ischaemic condition-improving drugs or therapeutics for ischaemic diseases. ABI99913 and ABI99914 represent PCR primers for a mouse ischaemic condition related sequence, which are justed in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                     841
                                                                           794
                                                                                          781
                                                                                                                    734
                                                                                                                                                                674
                                                                                                                                                                                  661
                                                                                                                                                                                                         614
                                                                                                                                                                                                                                                 554
                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                              374
                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                       314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cal Similarity
2039; Conserv
              901
                                  854
                                                                                                                                         721
                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                           494
                                                                                                                                                                                                                                                                                                                                     434
                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ۳
                                                                                                                                                                                                                                                TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGAGGGAGACGGACGTTGAGAGAACGAGGAGGAGGAGAGAAAATGGCGTCCACGGATTA
CGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGAGGGGG
                                                                                     CTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTC
                                                                                                                              CAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTA
                                                                                                                                                                                                                     ACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG
                                                                                                                                                                                                                                                                                          TGAGACTAGTCAACCTCAATCTAGCACAGGGGGGTTACAACCAGCCCAGCCCTAGGATATGG
                                                                                                                                                                                                                                                                                                                                    CTATGGGCAGCAGCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAAACAAGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                           CACCACCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGTACCTATAGCCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAC
                                                                                                                                                                CAGTTACTCTCAGCAGAACACCTATGGGCAGCCAGCAGCTATGGACAACAGAGTAGCTA
                                                                                                                                                                                                                                                                                                                                                                               CACAACGCAGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCCAGCCTGTGCAGGGATATGGCACTGGGGGCTTATGACAGCACCACTGCTACAGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGTACCTATAGTCAAGCTGCAGCCCAGCCAGCCTACAGTGCTTACACCGCCCAGCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2188
                                           ATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTC
                                                                            CTACAGCCAGGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTC
                                                                                                                    TGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCTACTAGTTACCCGCCTCAGACTGGATC
                                                                                                                                                                                                         ACCTCCATCTTATCCTCCTACCAGCTACTCCTCTTCACAGCCGACTAGTTACGATCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            587 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93.3%;
                                                                                                                                                                                                                                                                                                                                                                             CTTACGCAGCTCAGTCAGCATATGGCACCCAGCCTGCCTACCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           551 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Score 1927.4; pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            G; 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  136;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10;
                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                  913
                                                      900
                                                                           853
                                                                                               840
                                                                                                                     793
                                                                                                                                         780
                                                                                                                                                             733
                                                                                                                                                                                  720
                                                                                                                                                                                                         673
                                                                                                                                                                                                                            660
                                                                                                                                                                                                                                                 613
                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                           553
                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                     493
                                                                                                                                                                                                                                                                                                                                                                              433
                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                         373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                  δ
  밁
                 S
                                           밁
                                                        5
                                                                             닭
                                                                                                    5
                                                                                                                             밁
                                                                                                                                             5
                                                                                                                                                                  문
                                                                                                                                                                                        S
                                                                                                                                                                                                          멍
                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                               ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     중 유
                                                                                                                                                                                                                                                            1631
                                                                                                                                                                                                                                                                                                                                                                                        1451
                                                                                                                                                                                                                                                                                                                                                                                                                                 1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081
   1991
                                            1931
                                                                 1921
                                                                                    1871
                                                                                                          1861
                                                                                                                               1811
                                                                                                                                                                                                                  1691
                                                                                                                                                                                                                                      1681
                                                                                                                                                                                                                                                                                                     1571
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021
                                                                                                                                                   1801
                                                                                                                                                                                                                                                                                                                          1561
                                                                                                                                                                                                                                                                                                                                               1511
                                                                                                                                                                                                                                                                                                                                                                    1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               914
  GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATT
                                                        GGAACAGATGGGAAGAAGAAGAGAGGACGTGGAAGACCTGGAAAAATGGATAAAGGCGA
                                                                                                CCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGGCCCCCTGGACCTTTGAT
                                                                                                                                            AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA
                                                                                                                                                                       TCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCC
                                                                                                                                                                                                                                                                                                               AGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAA
                                                                                                                                                                                                                                                                                                                                                         CATGGGAGGCCGTGGAGGAGATAGAGGAGGGCTTCCCCTCCAAGAGGACCCCCGGGGTTCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                     GCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAGAAGCCTCCAATGAACAGCATGCGGGGAGGCATGCCACCTCGTGAGGGCAGGGGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGAAAGCCTAAAGGGGACGCCACAGTGTCCTATGAAGATCCACCAACTGCAAAGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCAACCCACTGCCAAGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGAGGACGCCGGTGGAATGGGCAG
                                            GGAACAGATGGGAAGAAGAAGACGCGGACGTGGAGGACCTGGGAAAATGGATAAAGGCGA
                                                                                      CCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGTCCTGGGGGGGCCTCCTGGACCTTTAAT
                                                                                                                               AATGTTCAGAGGTGGCAGAGGTGGAGACAGAGGAGGCTTCCGAGGTGGCCGTGGAATGGA
                                                                                                                                                                                                                                                                                                     AGGAAACCCCTCTGGAGGAGGAAATGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAA
                                                                                                                                                                                                                                                                                                                                               CATGGGAGGCCGTGGAGGAGACAGAGGGGCTTCCCTCCAAGAGGGCCCCCGAGGCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                         GCCACCACCACTTCGTGGAGGTCCTGGTGGCCCAGGAGGCCCTGGAGGACCCATGGGTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTGGAATGGTTTGATGGGAAAGATTTTCAAGGAAGCAAACTTAAAGTGTCTCTTGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGATTAAATGACAATGTGACTCTGGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGATCTAGGCCTTCCTATAGATCCCGATGAAGACTCTGACAACAGTGCAATTTATGTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGACGCGGTGGACTGG---G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGGACCAGGAGAGAACCGGAGCTTGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGG
                       2040
                                                                 1980
                                                                                                                               1870
                                                                                                                                                                        1810
                                                                                                                                                                                            1800
                                                                                                                                                                                                                  1750
                                                                                                                                                                                                                                       1740
                                                                                                                                                                                                                                                                                 1680
                                                                                                                                                                                                                                                                                                                          1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1260
                                            1990
                                                                                     1930
                                                                                                          1920
                                                                                                                                                                                                                                                            1690
                                                                                                                                                                                                                                                                                                     1630
                                                                                                                                                                                                                                                                                                                                               1570
                                                                                                                                                                                                                                                                                                                                                                   1560
                                                                                                                                                                                                                                                                                                                                                                                        1510
                                                                                                                                                                                                                                                                                                                                                                                                            1500
                                                                                                                                                                                                                                                                                                                                                                                                                                   1450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1030
                                                                                                                                                    1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               973
```

```
RESULT 13
ADA53506
ID ADA53
XX ADA53
XX ADA53
XX Cyco
XX Cyto
XX Gene
XX Luma)
XX Lond
XX Homc
XX Homc
XX 111-
YN 11-
YN 21-
YN 
                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                       8
                                                                                                    Ś
                                                                                                                                                 Query Match
Best Local Sim.
Matches 1987;
                                                                                                                                                                                                                                                                       The present invention relates to novel human secretory or membrane proteins (ADA54072-ADA55710) and their coding sequences (ADA52433-ADA54071). The coding sequences are useful in the gene therapy of diseases caused by abnormalities of the proteins, e.g. cancer, inflammatory diseases, osteoporosis or neurological disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cytostatic; Anti-inflammatory; Osteopathic; Neuroprotective; Nootropic; Gene Therapy; human; secretory protein; membrane proteins; cancer; inflammatory disease; osteoporosis; neurological disease; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yamamoto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Isogai T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-SEP-2001;
24-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-MAR-2002; 2002EP-00006586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADA53506
                                                                                                                                                                                                                                                                                                                                                                                                                                          polynucleotides encoding full-length polypeptides, e.g. secretory or membrane proteins, useful for developing medicines for diseases the gene is involved, or as target molecules for gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2003-395539/38
DB; ADA55145.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       coding sequence, SEQ
                          93
                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HELIX RES INST.
RES ASSOC BIOTECHNOLOGY.
                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sugiyama T, J, Isono Y, I Yoshikawa T,
                                                                                                                                                                                                                                    1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAGAAACATTAAAACAAGTTAAAAT 2185
| ||||||||||||||||||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACTACCAGATTTATTTTTTAAACCAGAAAATGTTTTTAAATTTATAATTCCATATTTATA
GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG
                                                                                         AAGGAGAGAAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                       SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGTACCAGATTTATTTTTAAACCAGGAAATGTTTTAAATTTATAATTCCATATTTATA
                                                                   AAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGTTGGCGACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001JP-00328381.
2002US-0350435P.
                                                                                                                                                                                                                                                                                                                                                                                                       ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                  BP; 519 A; 504 C; 584 G; 381 T;
                                                                                                                                                                                                                                                                                                                                                                                                     1074; 205pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDNA; 1988
                                                                                                                                                                75.7%;
92.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Otsuki T, Wakamatsu A,
Hio Y, Otsuka K, Nagai
Otsuka M, Nagahari K, Y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                 Score 1808.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1074.
                                                                                                                                                                                                                                                                                                                                                                                                     English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2188
                                                                                                                                                                                           DB
                                                                                                                                                                                                                                  0 U;
                                                                                                                                               ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A, Sato H, Is at K, Irie R, Masuho Y;
                                                                                                                                                                                           10;
                                                                                                                                                   Indels 168;
                                                                                                                                                                                                                                    0 Other
                                                                                                                                                                                        Length 1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ishii S;
R, Tamechika
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2100
                       152
                                                                 60
                                                                                                        92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ħ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                              S
                                                                         밁
                                                                                                                   S
                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                      र्
                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                       맑
                                           1173
                                                                                                                                                                                                                1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                          793
                                                                                                                                                                                                                                                                                                                                        733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGA
                              TGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAAACTGGGCAACCCA
                                                                                                                 ACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATC
                                                                                                                                                                                                   GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG
                                                                                                                                                                                                                                                                                               GGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                   CTGATAACCGGGGCAGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAAACCGGAGCATGAGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCCCCCAGTAGCATGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGAGCAGCTATGGACAGCAGGGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTATGATACCACCACTGCTACAGTCACCACCACCAGGCCTCCTATGCAGCTCAGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTTATGATACCACCACTGCTACAGTCACCACCACCCAGGCCTCTATGCAGCTCAGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATACTACTCCAACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATACTACTCCAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG
        TGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCA
                                                                                       ACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATC
                                                                                                                                                                         GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCTACCAGCTATTCCT
                                                                                                                                                                                                                                                                                                   1052
                                               1232
                                                                                                                                1172
                                                                                                                                                                                                                1112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            452
```

912

972

852

792 992 732 932 872 612 812

672

492 692 432 632 422

552 752 512 420

422

```
RESULT 14
ADR07446
ID ADR07
XX
AC ADR07
XX
AC ADR07
XX
AC ADR07
                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                          밁
                                                                                                                                              δ
                                                                                                                                                                            밁
                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                       ADR07446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1453
                                                                                                                                                                             1873
                                                                                                                                                                                                     2073
                                                                                                                                                                                                                                1813
                                                                                                                                                                                                                                                           2013
                                                                                                                                                                                                                                                                                      1753
                                                                                                                                                                                                                                                                                                               1953
                                                                                                                                                                                                                                                                                                                                            1693
                                                                                                                                                                                                                                                                                                                                                                      1893
                                                                                                                                                                                                                                                                                                                                                                                                1633
                                                                                                                                                                                                                                                                                                                                                                                                                           1833
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1233
                                                                                                                                          CTGTACTTTAGTATTTTTCACCATTTGTGAAGAAACATTAAAACAAGTTAAATGGT 2188
                                                                                                                                                                           GTTTTAAATTTATAATTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGT
                                                                                                                                                                                                                                              GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCCGGCCCTACT
                                                                                                                                                                                                                                                                                                                                                          GCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAGGAAGAAGAGGAGGACGTG
                                                                                                                                                                                                                                                                                                                                                                                                              GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCTCATGGATCGTGGTCGCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAGGAGGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACCTTCGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCTGCCACCCCGTGAGGGCAGAGGCCATGCCACCACTCCGTGGAGGTCCAGGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGATCCACATCTACCTGGACAAGGAAAACAGGAAAAGCCCAAAAGGCGATGCCACAGTGTCCT
                                                       standard;
                                                                                                                                                                                                     GTTTTAAATTTATAATTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGT
                                                                                                                                                                                                                                                                                     GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACT
                                                                                                                                                                                                                                                                                                                                          GCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTG
                                                                                                                                                                                                                                                                                                                                                                                               GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCCCCCGGGTGGTCATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGGAGGTCCTGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCT
                                                                                                                         CTGTACTTTAGTATTTTTCACCATTTGTGAAGAAACATTAAAACAAGTTAAATGGT
                                                                                                                                                                                                                                GTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCC
                                                     CDNA; 2026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCT
                                                                                                                        1988
                                                                                                                                                                                                                             1872
                                                                                                                                                                                                                                                          2072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1472
                                                                                                                                                                                                     2132
                                                                                                                                                                                                                                                                                     1812
                                                                                                                                                                                                                                                                                                                                          1752
                                                                                                                                                                                                                                                                                                                                                                                                                        1892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1092
                                                                                                                                                                                                                                                                                                               2012
                                                                                                                                                                                                                                                                                                                                                                     1952
                                                                                                                                                                                                                                                                                                                                                                                                1692
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1212
```

```
CC This invention relates to novel, isolated full length human cDNA CC molecules and the encoded proteins thereof. Specifically, it refers to CC cDNA clones obtained by an oligo-capping method, where none of these CC clones are identical to any known human mRNAs. The present invention CC describes an immunoassay to identify agonists and antagonists, as well as CC antibodies, antisense molecules and siRNAs that can all be used to bind CC to and modulate expression of the cDNA molecules. As such, these CC the various diseases or morbid states. In particular, they are useful in CC gene therapy for treating osteoporosis, neurological disease, Alzheimer's CC disease, Parkinson's disease, dementia, short memory and various cancers, as well as for maintaining equilibrium of sense or motor function, and CC as well as for maintaining equilibrium of sense or motor function, and CC they exhibit osteopathic, neuroprotective, nootropic, antiparkinsonian, CC cytostatic and tranquiliser activities. This polymucleotide is a full CC cytostatic and tranquiliser activities. This polymucleotide is a full CC cytostatic and tranquiliser activities. This polymucleotide is a full CC cytostatic and tranquiliser activities. This polymucleotide is a full CC cytostatic and tranquiliser activities. This polymucleotide is a full CC cytostatic and tranquiliser activities. This polymucleotide is a full CC cytostatic and tranquiliser activities. This polymucleotide is a full CC cytostatic and tranquiliser activities. This polymucleotide is a full CC cytostatic condition and condition are sequence of the invention. NOTE: This sequence is not CC condition the sequence listing of the specification but can be obtained on CC condition to the specification but can be obtained on CC condition.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene; ss; human; oligo-capping method; diagnostic marker; gene therapy osteoporosis; neurological disease; Alzheimer's disease; parkinson's disease; dementia; short memory; cancer; sense or motor function; emotional reaction; fear response; panic; osteopathic; neuroprotective; nootropic; antiparkinsonian; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Isogai T, Ya
Wakamatsu A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New 1995 cDNA, useful Alzheimer's diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-FEB-2003; 2003JP-00102207
09-MAY-2003; 2003JP-00131452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; SEQ ID NO 952; 2686pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-FEB-2004; 2004EP-00003145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-AUG-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tranquiliser.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Full length human cDNA useful for treating neurological disease Seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (REAS-) RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Yamamoto J,
A, Ishii S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ASSOC BIOTECHNOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   for treating osteoporosis, neurological diseases, Parkinson's diseases, dementia and various cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nishikawa T, I
Nagai K, Irie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Isono
e R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sugiyama
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  H
```

Sequence 2026 BP; 540 A; 513 C; 590 G; 383 T; 0 U; 0 Other;

ঠ S 밁 문 문 S Query Match Best Local Sim Matches 1984; 121 13 67 7 Similarity ATATGCACAGACCACCCAGGCATATGGGCCAACAAAGCTATGGAACCTATGGACAGCCCAC CTATAGCCAAGCTGCAGCGCAGCGCAGCCTACAGTGCTTACACCGCCCAGCCCAGCCCAAGG AGACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTAC CTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGG AGACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTAC Conservative 74.6%; Score 1782.8; Pred. No. 0; 0; Mismatches 0, ВB 42; 13; Indels 156; Length 186 120 126 60 66 180 N

04-NOV-2004

(first entry)

S

187

TGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCCTATGCAAC

-	
DE Human PRO cDNA sequence SEQ ID NO:230 XX KW human; PRO; immune related disease; i	1267 GCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCACCGACTGCCAAGGCTGCCGTGGA 1326
AC ADP56333; XX XX DT 18-NOV-2004 (first entry)	1207 GATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAA 1266
RESULT 15 ADP56333 ID ADP56333 standard; cDNA; 1807 BP.	1147 AAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAA 1206
Db 2005 ACATTANACANGTTANATGGT 2026	1087 AGGCCCACCTGTAGATCCAGATGAACACTCTGACAACAGTGCAATTTATGTACAAGGATT 1146
1945 GCC	1027 AGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCT 1086
207, CASHILLAIIII AMACCAGAAAATG 1885 CAGATTTATTTTTTAAACCAGAAAATG 1885 CAGATTATTTTTTTTAAACCAGAAAATG	967 TCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGACGCCGTTGGAATGGGCAGCGCTGG 1026
1825 TCAGGAGCGCAGAGATCGGCCCTACTA	907 AGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGAGGGGGATTTGA 966
1765	847 ACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACC 906
1705 1927	787 CCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCG 846
1645	727 ACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCACCC
1585	667 CTCTCAGCAGAACACCTATGGGCAACCGAGCAGTATGGACAGCAGAGTAGCTATGGTCA 726
1525 TGA	607 ATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTA 666
1465 1687	547 TAACTACAGTTATCCCCAGGTACCTGGAGCTACCCCATGCAGCCAGTCACTGCACCTCC 606
1405 1627	487 TAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAG 546
1345 1567	427 GCAGCAGCAGCCACCAGCACCTACAAGACCGCAGGATAGAACAAGCCCACTGAGAC 486
	367 CCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGG 426
1225	307 GCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCAC 366 296 295
1165 1387	247 TTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCAGGCATACAGCCA 306
Qy 1327 ATGGTTTGATGGGAAAGATTTTCAAGGG	181 TGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAAC 240

밁

human; PRO; immune related disease; inflammatory immune response;

Human PRO cDNA sequence SEQ ID NO:2309.

8

문

ફ

유정

8 8 8 8

8

음 성 음

밁

Ś

중 음 중

음 성 음

8 8 8

문

र्

음 성

8888

용 **8**

```
밁
                         5
                                                               맑
                                                                                                                                                                                                   The present invention describes an isolated PRO nucleic acid (1). Also CC described: (1) a vector comprising (1); (2) a host cell comprising the vector of (1); (3) a process for producing a PRO polypeptides; (4) an CC isolated PRO polypeptide; (5) a chimeric molecule comprising the CC polypeptide of (4) fused to a heterologous amino acid sequence; (6) an CC antibody which specifically binds to a polypeptide of (4); (7) a CC composition of matter comprising a polypeptide of (4); an agonist or CC polypeptide in combination with a carrier; (8) an article of manufacture comprising a container, a label on the container and a composition of CC matter of (7); (9) a method of treating an immune related disease in a CC mammal; (10) a method for determining the presence of a PRO polypeptide in a sample suspected of having the polypeptide; (11) a method of CC diagnosing an immune related disease or an inflammatory immune response in mammal; (12) a method of identifying a compound that inhibits or CC mimics the activity of or expression of a gene encoding a PRO polypeptide (2); and (13) a method of stimulating the immune response in a mammal. The CR properties the activity of or expression of a gene encoding a PRO polypeptide (2); and (13) a method of stimulating the immune response in a mammal. The CR properties the activities, antiinflammatory, antiarthritic, antirheumatic, antidabetic, antiarthantic, antiarthritic, a
                                                                                             S
                                                                                                                               Query Match
Best Local Sim
Matches 1794;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New PRO polynucleotides and polypeptides, useful in useful in diagnosing and treating an immune related disease, e.g. systemic lupus erythematosus, rheumatoid arthritis, diabetes mellitus or asthma and in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        immune response stimulation; antiallergic; antianaemic; antiarthritic; antiasthmatic; antithbetic; antiinflammatory; antipsoriatic; antitrheumatic; antithyroid; CNS; dermatological; gastrointestinal; haemostatic; hepatotropic; immunostimulant; immunosuppressive; muscular; nephrotropic; neuroprotective; osteopathic; respiratory; vasotropic; virucide; gene therapy; gene; ss.
                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        stimulating an immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2004-376182/35
P-PSDB; ADP56334.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-OCT-2002; 2002US-0422472P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-OCT-2003; 2003WO-US034381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N
73
                               13
                                                               13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nw
'S'
                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENENTECH
                 CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ
                                                                                        AGAGGGAGACGGTTGAGAGAACGAGGAGGAGGAAGGAAAATGGCGTCCACGGATTA
                                                                                                                                                                                                   1807
CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Clark H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ID NO 2309; 3009pp;
                                                                                                                                                                                                   BP; 476
                                                                                                                                               65.5%;
                                                                                                                                                                                                 A; 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gurney
                                                                                                                               <u>.</u>
                                                                                                                                                                                                 Ç
                                                                                                                                                 Score 1564.4;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŗ
                                                                                                                                                                                                 523
                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Schoenfeld J,
                                                                                                                                                                                                 ٠.
                                                                                                                                                                                                   311
                                                                                                                                                                                                 <u>;</u>
                                                                                                                                                                DB
                                                                                                                                                                                               0 U;
                                                                                                                               1,
                                                                                                                               Indels
                                                                                                                                                                                                 0 Other
                                                                                                                                                                Length
                                                                                                                               219;
                                                                                                                                                                1807;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PM.
132
                               120
                                                              72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
               밁
                                       á
                                                                             밁
                                                                                                       8
                                                                                                                                               밁
                                                                                                                                                                            Ś
                                                                                                                                                                                                             뮍
                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                1081
                                                                                                                                                                                1021
               934
                                                                               874
                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                  849
                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                    CTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCTACGGGCAGCAGAGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACAGAGTAACTACAGTTATCCCCCAGGTACCTGGGAGCTACCCCCATGCAGCCAGTCACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTATGGGCAGCAGCCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCAC
                                            AGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGT
                                                                                                              TGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACA
                                                                                                                                                                       CGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCATGGATGAAGGACCAGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACCACGAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTACTCCAACTGCCCCCCAGGCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA
                                                                                                                                                                                                                                                CGGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGG
                                                                                                                                                                                                                                                                                                                                                                                 ATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTATGGGCAGCAGCCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATA
                                              1200
                                                                                                                                                                                                                                                1020
                                                                                                            1140
                                                                                                                                                                                1080
               993
                                                                               933
                                                                                                                                               873
                                                                                                                                                                                                               848
                                                                                                                                                                                                                                                                                 848
                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                  848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
```

. B &	g B	γQ	망	Ş	Ф	Ş	Дb	Ş	d d	Ş	망	Ş	g	Ş	망	ğ	Дb	Ş	Db	8	В	ફ	дb	Ş	皮	Ś
1774	71	1921	1654	1861	1594	1801	1534	1741	1474	1681	1414	1621	1354	1561	1294	1501	1234	1441	1174	1381	1114	1321	1054	1261	994	1201
GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAG 2014	GGAACAGATGGGAGGAAGAAGAAGGACGTGGAAAAAAATGGATAAAGGCGA 1773	GGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAAGACCTGGAAAAATGGATAAAGGCGA 1980	CGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGAT 1713	CCTGGGGGGCCCCCTGGAC	AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA 1653	AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA 1860	TGGCCCTGGTGGCATGCGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGG 1593	CTGGTGGCATGCGGGGAGGAAGAGGGTGGCCTCATGGATCGTGGTGGTCG	AAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGG 1533	CTGAAGGCTTCCCTCCCGCCACCCTTTCCGCCCCGGGTGGTGATCGTGGCA	TCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCC 1473	TCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCC 1680	AGGGAACCCCTCTGGAGGAGAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAA 1413	ACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCC	CATGGGAGGCCGTGGAGAGATAGAGGAGGCTTCCCTCCAAGAGGGACCCCGGGGTTCCCC 1353	CATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCCG 1560	GCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCG 1293	GCCACCACCACTCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGGACCCATGGGTCG 1500	GAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCAT 1233	GAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGGCAGAGGCAT 1440	CGTGGAATGGTTTGATGGGAAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCG 1173	CGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCG 1380	AGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCACCC	AGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCCACCCCACTGCCAAGGCTGC 1320	TGTTAAGATGAACAAGAGAACTGGGCAAACCCATGATCCACATCTACCTGGACAAGGAAAC 1053	TGTTAAGATGAACAAGAGAAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAC 1260

Search completed: February 20, 2005, 05:30:30 Job time : 1175.11 secs

٠,

4

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
   2369.4
11566
1499.6
432.6
432.6
432.3
364.2
364.2
366.4
315.8
315.8
315.8
315.8
315.8
315.8
315.8
315.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Issued_Patents_NA:*

1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*

2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*

3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*

4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*

5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*

6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1202784 seqs, 818138359 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pebruary 20, 2005, 04:13:53 ; Search time 396.352 Seconds (without alignments) 9866.749 Million cell updates/sec
                    GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
   BB
US-08-343-443B-1
US-09-949-016-13696
US-09-949-016-1954
US-09-949-016-1954
US-09-949-016-16785
US-09-949-016-16786
US-09-949-016-16786
US-09-949-016-66382
US-09-949-016-66382
US-09-949-016-13661
US-09-13-1999C-12062
US-09-949-016-176664
US-09-949-016-176664
US-09-949-016-176669
US-09-949-016-176661
US-09-949-016-176661
US-09-949-016-176662
US-09-949-016-176663
US-09-949-016-176663
US-09-949-016-176663
US-09-949-016-176664
US-09-949-016-176663
US-09-949-016-176664
US-09-949-016-176664
US-09-949-016-176665
US-09-949-016-176665
US-09-949-016-176664
US-09-949-016-176665
US-09-949-016-176665
US-09-949-016-176665
US-09-949-016-176665
US-09-949-016-176665
US-09-949-016-176665
US-09-949-016-176665
US-09-949-016-176645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2405568
             Sequence 1, Appli
Sequence 5043, Ap
Sequence 5044, Ap
Sequence 1954, Ap
Sequence 18, Appl
Sequence 16785, A
Sequence 16785, A
Sequence 1657, Appl
Sequence 13361, A
Sequence 13361, A
Sequence 1366, A
Sequence 17664, A
Sequence 17664, A
Sequence 176661,
Sequence 1766837,
Sequence 176683,
Sequence 1766845,
Sequence 176645,
Sequence 176645,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 1
US-08-343-443B-1
; Sequence 1, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Application
```

a			a		0	۵		•••				o			-		0
45	44	43	42	41	40	39	38	37	36	35	34	ü	32	31	30	29	28
57	57.2	57.2	57.8	58	58.8	58.8	59	59.8	60	64.6	64.6	65.6	66.4	67	67	70.2	74
2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.7	2.7	2.7	2.8	2.8	2.8	2.9	3.1
1926	1684	1682	12695	328	128470	34230	1225	1505	268	601	109	7218	311	152145	152132	215	114793
ω	4	4.	4.	N	4	4	4	_	ᆫ	4	4	ب	4	4	4	4	4.
US-09-249-585A-4	US-09-919-039-323	US-09-220-132-82	US-09-949-016-16775	US-08-343-443B-5	US-09-949-016-13765	US-09-949-016-12052	US-09-976-594-416	US-07-915-246-1	US-08-437-027-19	US-09-949-016-176663	US-09-949-016-176640	US-08-232-463-14	US-09-313-294A-5928	US-09-949-016-12371	US-09-949-016-13845	US-09-513-999C-31510	US-10-148-806-3
Sequence 4, Appli	Sequence 323, App	Sequence 82, Appl	Sequence 16775, A	Sequence 5, Appli	Sequence 13765, A	Sequence 12052, A	Sequence 416, App	Sequence 1, Appli	Sequence 19, Appl	Sequence 176663,	Sequence 176640,	Sequence 14, Appl	Sequence 5928, Ap	Sequence 12371, A	Sequence 13845, A	Sequence 31510, A	Sequence 3, Appli

ALIGNMENTS

" . " . " . " . " . " . " . " . " . " .	
CORRESPONDENCE LIVER ADDRESSEE: Weiser & Associates STREET: 230 South Fifteenth Street CITY: Philadelphia STATE: PA COUNTRY: USA ZIP: 19102 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: ABDIT 1.0 DOS text editor CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION NUMBER: PCT/FR93/00494 FRIOR APPLICATION NUMBER: PCT/FR93/00494 FRIOR APPLICATION NUMBER: PCT/FR93/00494 FRIING DATE: 19-MAY-1993 FRIOR APPLICATION NUMBER: PCT/FR93/00494 FRIING DATE: 20-MAY-1993 FRIOR APPLICATION NUMBER: PS/06123 FILING DATE: 20-MAY-1993 FRIOR APPLICATION NUMBER: 989.6121P TELECOMMUNICATION INFORMATION: REGISTRATION INFORMATION: TELECOMMUNICATION INFORMATION: TELECOMMUNICATION INFORMATION: TELECOMMUNICATION STATES 215-875-8383 TELEFAX: 215-875-8383 INFORMATION FOR SEG ID NO: 1: SEQUEENCE CHARACTERISTICS:	O. 5968734 INFORMATION: CANT: Aurias, A CANT: Delattre, CANT: Desaze, CANT: Melot, Th CANT: Peter, Ma CANT: Ploougas, G CANT: Thomas, G CANT: Thomas, G CANT: Thomas, G CANT: Thomas, G CANT: TOUCHAION: OF INVENTION: OF INVENTION: OF INVENTION: OF INVENTION: OF INVENTION:

```
US-08-343-443B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 99.1%; Score 2369.4; Best Local Similarity 100.0%; Pred. No. 0; Matches 2370; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 2371 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
FEATURE:
FEATURE:
NAME/KEY: CDS
LOCATION: 25..1992
                                                                                                                                                                                                                                                                                                                                 440
                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                           380
                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 140
                                                                                                               740
                                                                                                                                                                                                                                             560
                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                     320
                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        200
           841
                               960
                                                    781
                                                                         800
                                                                                              721
                                                                                                                                       661
                                                                                                                                                            680
                                                                                                                                                                                109
                                                                                                                                                                                                      620
                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                         500
                                                                                                                                                                                                                                                                                                                                                                                                                                                               260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCT
                                                                                                                                                                                                                                                                                                                                                      GCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAGCAGCAGCA 439
                                                                                                                                                                                                                                                                                                                                                                                               TATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAGGCCTCCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGG 919
                                                               CAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCC
                                                                                                                                                                                                                           CCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCT
                                                                                                                                                                                                                                                                    TCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTAT
                                                                                                                                                                                                                                                                                                             GCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAA 499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTAT
                                                                                                         GGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGT
                                                                                                                                                    ACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTAT
                                                                                                                                                                                              ACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAAC
                                                                                                                                                                                                                                      CCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCT
                                                                                              GGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGT
                                                                                                                                        ACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTAT
                                                                                                                                                                                  ACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                         559
                                                                                                                                                                                                                                                                                                                                                                                                                      379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           139
                                                                         859
                                                                                                                   799
                                                                                                                                                            739
                                                                                                                                                                                  660
                                                                                                                                                                                                       679
                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                619
                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                               319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     79
                                                    840
                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                           닭
                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                      岁
                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
ঠ B
                                    ঠ
                                                              밁
                                                                             S
                                                                                                   g
                                                                                                                         δ
                                                                                                                                                  밁
                                                                                                                                                                 S
                                                                                                                                                                                          밁
                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                        뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1021
                                                                                                                                                                                                                                                                                                    1580
                                                                                                                                                                                                                                                                                                                          1501
                                                                                                                                                                                                                                                                                                                                                                                                             1381
                                                                                                                                                                                                                                                                                                                                                                                                                                  1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1040
                                                                                                                                                                                                                                                           1640
                                                                                                                                                                                                                                                                                1561
                                                                                                                                                                                                                                                                                                                                             1520
                                                                                                          1801
                                                                                                                                                    1741
                                                                                                                                                                                             1681
                                                                                                                                                                                                                                       1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           920
                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCAGAGGTGGGCGGGGAGGACGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATG
  AGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGA
                                                                          GGAAGACGAGGTGGCCCCTGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGA 1939
                                                                                                        GGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGA
                                                                                                                                                              GGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGT
                                                                                                                                                                                                         CCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGG
                                                                                                                                                                                                                                      ACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAAGGCCCCAAAGCCTGAAGGCTTCCTC
                                                                                                                                                                                                                                                  AACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTC
                                                                                                                                                                                                                                                                               GGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAG
                                                                                                                                                                                                                                                                                                                         GATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGA
                                                                                                                                                                                                                                                                                                                                                                  AGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTA
                                                                GGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGA
                                                                                                                                                     GGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGT
                                                                                                                                                                                              cceccacccrrrccecccceeereerearcereecaeaeereecccreereecarecee
                                                                                                                               1879
                                                                                                                                                     1800
                                                                                                                                                                                                                                                           1699
                                                                                                                                                                                                                                                                                                     1639
                                                                                                                                                                                                                                                                                                                            1560
                                                                                                                                                                                                                                                                                                                                              1579
                                                                                                                                                                                                                                                                                                                                                                     1500
                                                                                                                                                                                                                                                                                                                                                                                         1519
                                                                                                                                                                                                                                                                                                                                                                                                               1440
                                                                                                                                                                                                                                                                                                                                                                                                                                  1459
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1039
                                                                                                           1860
                                                                                                                                                                         1819
                                                                                                                                                                                               1740
                                                                                                                                                                                                                   1759
                                                                                                                                                                                                                                        1680
                                                                                                                                                                                                                                                                                 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
```

8 8 8 8 8 8 8

음 성

밁 S ₽ 멍 5 묽 8 片 S 밁 á

Ş

용

S よ Ś g S 몽 중 유

į

Query Match Best Local Similarity 96.4%; Pred. No. 0; Best Local Similarity 96.4%; Pred. No. 0; Matches 2106; Conservative 0; Mismatches 76; Indels 2; Gaps 2; Qy 6 GAGACGGACGTTGAGAGAACGAGGAGGAAGAAAATGGCCTCCACGGATTACAGTA 65	US-09-949-016-13696 ; Sequence 13696, Application US/09949016 ; Sequence 13696, Application US/09949016 ; Patent NO. 6812339 ; GENERAL INFORMATION: APPLICANT: VENTER, J. Craig et al. TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF FILE REFERENCE: CLOO1307 ; CURRENT FILING DATE: 2000-04-14 ; PRIOR APPLICATION NUMBER: 60/241,755 ; PRIOR APPLICATION NUMBER: 60/241,755 ; PRIOR APPLICATION NUMBER: 60/237,768 ; PRIOR APPLICATION NUMBER: 60/237,768 ; PRIOR APPLICATION NUMBER: 60/231,498 ; PRIOR FILING DATE: 2000-10-20 ; PRIOR APPLICATION NUMBER: 60/231,498 ; PRIOR FILING DATE: 2000-09-08 ; NUMBER OF SEQ ID NOS: 207012 ; SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 13696 ; ENGTH: 6002 ; TYPE: DNA ; ORGANISM: Human US-09-949-016-13696	Db 1981 GATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATTGACCAGCATTATTTT 2040 Oy 2060 TAAACCAGAAAATGTTTAAAATTTATAATTCCATATTTATAATGTTGGCCACAACATTÄT 2119 2041 TAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATAATGTTGGCCACAACATTÄT 2119 Db 2041 TAAACCAGAAAATGTTTTAAATTTATAATTTCACCATATTTATAATGTTGGCCACAACATTÄT 2110 Oy 2120 GATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGTGAAAAAAAA
OY 10.6 CHARGE CHART CHARTAN AGE CENT CHART CHARGE	666 ACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCAGCAGCAGAGAGTAGCTATGGTC [Qy 246 CTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCAGGCATACAGCC Db 2236 CTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCCAACTGCCCCCAGGCATACAGCC Db 2236 AGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACCACTGCTACAGTCACCACCA Qy 306 AGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACCACTGCTACAGTCACCACCA

```
ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                 RESULT 3
US-09-949-016-5043
                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           श
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                          吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   맑
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
                                                                                                                      Sequence 5043, Application Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3316
                                                                                                                                                                                                                                2166
                                                                                                                                                                                                                                                          4094
                                                                                                                                                                                                                                                                                   2106
                                                                                                                                                                                                                                                                                                             4034
                                                                                                                                                                                                                                                                                                                                      2046
                                                                                                                                                                                                                                                                                                                                                                 3974
                                                                                                                                                                                                                                                                                                                                                                                         1986
                                                                                                                                                                                                                                                                                                                                                                                                                   3914
                                                                                                                                                                                                                                                                                                                                                                                                                                              1926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1506
                                                                                                                                                                                                     4154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ANTGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCTCTTGCTCGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                     CAATGGGAGGAAGAAGAGGACGTGAAGGACCTGGAAAAACGGATAAAGGCGAGCACT
                                                                                                                                                                                                                    AACATTAAAACAAGTTAAATGGTA 2189
                                                                                                                                                                                                                                                                        GGCCACAACATTATGATTATTCCTTGTGTACTTTAGTATTTTTCACCATTTTGTGAAGA
                                                                                                                                                                                                                                                                                                                           CCAGATTTATTTTTAAACCAGAAAATGTTTTAAAATTTTATAATTCCATATTTATAATGTT
                                                                                                                                                                                                                                                                                                                                                                 GTCAGGAGCGCAGAGATCAGCCCTACTAGATGCAGAGAACCCGCAGAGCTGCATTGACTA
                                                                                                                                                                                                                                                                                                                                                                                  GTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTTGACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                           AGATGGGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACC 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGGCCCCCTGGACCTTTGATGGAAC 1925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGAGAGCAACAAGTGTAAGGCTCCAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACACCTCTGGAGGAGAAACGTCCAGCACCAAGCTGGAGACAGGCAGTGTCCCAATCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCCCTCTGGAGGAGAAACGTCCAGCACCCGAGCTGGAGACTGGCAGTGTCCCAATCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGGCCGTGGAGGAGATAGAGGAGGCCTCCCTCCAAGAGGACCCCAGGGTTCCCGAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCGAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACCACTCTGCGGAGGTCCAGGAGGCCCAGGAAGTCCTGGGGGACCCATGGGTCACATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCCTCCAGTGAACAG
                                                                                                                                                                                                                                                                                                              CCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATAATGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGGCTTTGGTGGAGGAAGACAAGGTGGCCCTGGGGGGCCCCC-GGACCTTTGATGTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCAGAGGTGGCTGTGGTAGAGACAGAAGTGGCTTCCGTGGTGG-CTGGGCATGGACCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGGTGGCATGTGGGAAGAAGAGGTGGCCTCATGGATCATGGTGGTCCCCGGTGGAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGAAGGCTTCCTCCGGCCACCCTTCCCCACCCCGGGTGGTGATCATGGCAGAGGTGGCC
                                                                                                                                                                                                                                                          GGCCACAACATTATGATTATTCTTTCTCTGTACTTTAGTATTTTTCACCATTTGTGAAGA
                                                                                                                                      US/09949016
                                                                     ASSOCIATED
OF DETECTION
                                                                     AND
                                                                     SESU
                                                                      THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1565
                                                                                                                                                                                                                                                                                    2165
                                                                                                                                                                                                                                                                                                                                                                                                                      3973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3435
                                                                                                                                                                                                                                                                                                                                                                   4033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3375
                                                                                                                                                                                                                                                           4153
                                                                                                                                                                                                                                                                                                              4093
                                                                                                                                                                                                                                                                                                                                       2105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                             밁
                                                    S
                                                                                 밁
                                                                                                    र्
                                                                                                                                      맑
                                                                                                                                                               S
                                                                                                                                                                                          맑
                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                        밁
```

```
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR PILING DATE: 2000-10-03
PRIOR PPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.
SEQ ID NO 5043
LENGTH: 1785
TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-949-016-5043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 1785;
                              791
                                                                                                                          661
                                                                                                                                                        671
                                                                                                                                                                                     601
                                                                                                                                                                                                                    611
                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                551
                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                           491
                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                       431
                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    131
781
                                                              721
                                                                                          731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11 GGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               _
                GCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAG 850
                                                                             AGCAGCTATGGGCAGCCTCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAA
                                                                                                                          CAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAA
                                                                                                                                          TACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCT
                                                                                                                                                                                                                                                 TACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACCTCCATCC
                                                                                                                                                                                                                                                                      TACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCC
                                                                                                                                                                                                                                                                                                              CAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGT
                                                                                                                                                                                                                                                                                                                                                                                                       CAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCCACTCAAGGATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GEACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTAT
                                                              AGCAGCTATGGGCAGCAGCTCCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGCCAA
                                                                                                                                                                                       TACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         65.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1556; Di
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1785;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels 219;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                             790
                                                                                                                                                        730
                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                 610
                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                              550
                                                                                                                                                                                                                                                                                                                                                                                                          490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              70
                                                                                                                           720
                                                                                                                                                                                         660
                                                                                                                                                                                                                       670
                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                        420
```

GACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCCGGACCAGGA

```
S
                                                                                                                                                          밁
                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                       र्
                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           र्
                                            밁
                                                                    र्
                                                                                                   문
                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  श्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뮹
                                                                                                                                                                                                                                                                           1402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1451
                                                                                                                                                                                                                                                                                                                                1342
                                                                                                                                                                                                                                                                                                                                                            1571
                                                                                                                                                                                                                                                                                                                                                                                          1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1331
                 1931
                                              1642
                                                                                                    1582
                                                                                                                               1811
                                                                                                                                                           1522
                                                                                                                                                                                        1751
                                                                                                                                                                                                                  1462
                                                                                                                                                                                                                                              1691
                                                                                                                                                                                                                                                                                                       1631
                                                                                                                                                                                                                                                                                                                                                                                                                     1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                911
GGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGG 1330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACAAGAGAAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCC 1270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGATCGT
                                            TTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGATGGAACAGATG
                                                                                                                     GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC 1870
                                                                                                                                                                          GGCATGCGGGGAGGAGGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGA
                                                                                                                                                                                                                                 GGCTTCCTCCCGCCACCCTTTCCGCCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                         GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAA
                                                                                                                                                                                                                                                                                           GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAA
                                                                                                                                                                                                                                                                                                                                                                                         CGTGGAGGAGATAGAGGAGGACTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                             CGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGGACCCCGGGGGTTCCCCGAGGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCA 1450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAGAAGCCT 1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAAT 115(
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGC 1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGCTCCCGGTGGAATGTTCAGA
                                                                                                                                                                                                                  GGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                                                                                TCTGGAGGAGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGT
                                                                                                                                                                                                                                                                                                                                                  TCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAATGAACAGTATGCGGGGTGGTCTGCCACCCGTGAGGGCAGAGGCATGCCACCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGG 1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCC
                                                                        1930
                                                                                                                                                                                                                                                                                                     1690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1510
                                                                                                                                                           1581
                                                                                                                                                                                      1810
                                                                                                                                                                                                                                                                         1461
                                                                                                                                                                                                                                                                                                                                                            1630
                                                                                                   1641
                                                                                                                                                                                                                 1521
                                                                                                                                                                                                                                                                                                                                1401
                                                                                                                                                                                                                                                                                                                                                                                         1341
                                                                                                                                                                                                                                                                                                                                                                                                                   1570
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      861
```

δ

```
; SEQ ID NO 5044
; LENGTH: 1785
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-5044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASS
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILLING DATE: 2000-10-03
PRIOR FILLING DATE: 2000-10-03
PRIOR FILLING DATE: 2000-09-08
PRIOR FILLING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
S
                             片
                                                        δ
                                                                                       밁
                                                                                                             ð
                                                                                                                                               문
                                                                                                                                                                             S
                                                                                                                                                                                                           문
                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 4
US-09-949-016-5044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 1785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 5044, Application Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1702 GGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAG 1761
 551
                             481
                                                         491
                                                                                         421
                                                                                                                   431
                                                                                                                                                   361
                                                                                                                                                                                                            301
                                                                                                                                                                                                                                         311
                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                               191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1785;
                                                                                                                                                                                                                                                                                                    251
                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                        131
                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11
                                                                                                                     CAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGT
                                                                                                                                                                  GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAG
                                                                                                                                                                                                                              GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAG
                                                                                                                                                                                                                                                                                       GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCT
                                                                                                                                                                                                                                                                                                                                                   GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCT
                                                                                                                                                                                                                                                                                                                                                                                                              GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTTATGGACAGCCCACTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCCAAGCTGCAGCGCAGCAGGGGCTACAGTGCTTACACCCGCCCAGCCCCACTCAAGGATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGACGTTGAGAGAACGAGGAGGAGGAGAAAATGGCCGTCCACGGATTACAGTACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCGCAGAGATCGGCCCTACTAG
TACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCC
                                                                                                                                                                                                            GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCAG
                                                                                                                                                                                                                                                                        GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCCAAGCTGCAGCGCAGCGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATAT
                                                                                                                                                    GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGCGCAGAGATCGGCCCTACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         65.1%;
89.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1556; D
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ASSOCIATED OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1785;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            219;
                                                                                                                                                                                                                                         370
 610
                                                           550
                                                                                                                                                                               430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   130
                             540
                                                                                         480
                                                                                                                   490
                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                    310
                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                              250
                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
```

В ð 맑

밁 5 밁 δ

```
1631
                                                                                                                                                                                                                                                     1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1151
                                                   1342
                                                                                  1571
                                                                                                                   1282
                                                                                                                                                   1511
                                                                                                                                                                                  1222
                                                                                                                                                                                                                   1451
                                                                                                                                                                                                                                                                                    1391
                                                                                                                                                                                                                                                                                                                     1102
                                                                                                                                                                                                                                                                                                                                                                                    1042
                                                                                                                                                                                                                                                                                                                                                                                                                   1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                    982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAA
GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAA
                                                                        TCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCCAATCCGGGTTGT 1630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAACAGGAAAGGCCC 1270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG 1210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAAT 1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAG 1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGATCGT 970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGA 910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTCCAAGTCAATATAGCCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGTGGAGGAGATAGAGGGAGGCTTCCCTCCAAGAGGGACCCCGGGGGTTCCCCGAGGGAACCCC
                                                                                                                                                                                                        CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGC
                                                                                                                                                                                                                                                                                                                                                     TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                 AAAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGG 1330
                                                                                                                                                                                                                                                                                                                                                                                                                                                    AACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAACAGGAAAAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGC 1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGA------
                                                   TCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGT
                                                                                                                    CGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCC
                                                                                                                                                                                    CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGACCCATGGGTCGCATGGGAGGC
                                                                                                                                                                                                                                                     CCAATGAACAGTATGCGGGGTGGTCTGCCACCCGTGAGGGCAGAGGCATGCCACCACCA
                                                                                                                                                                                                                                                                                  CCAATGAACAGTATGCGGGGTGGTCTGCCACCCGTGAGGGCAGAGGCATGCCACCACCA
                                                                                                                                                                                                                                                                                                                                                                                    AAAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACCCATGGATGAAGGACCAGATCTTGATCTAGGC
                                                                                                                                                                                                                                                                                    1450
                                                                                                                                                                                                                                                                                                                                                     1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   981
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    861
                    1690
                                                                                                                    1341
                                                                                                                                                     1570
                                                                                                                                                                                    1281
                                                                                                                                                                                                                   1510
                                                                                                                                                                                                                                                     1221
                                                                                                                                                                                                                                                                                                                     1161
                                                                                                                                                                                                                                                                                                                                                                                    1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                밁
                                                                 á
                                                                                                   밁
                                                                                                                                  ð
                                                                                                                                                             밁
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1954, Application US/09949016
Patent No. 6812339
                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 1719; Conserv
                                    181
                                                                  191
                                                                                                       121
                                                                                                                                    131
   251
                                                                                                                                                                    61
                                                                                                                                                                                                     71
                                                                                                                                                                                                                                                                      11
```

S 片 ঠ 밁 S В S 맑 ঠ 밁 ş 밁 5 밁 ঠ В ঠ 밁 ঠ 밁 Ş 밁 Ş 밁 8 밁 δ 밁 δ

GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCT 250

GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT 190

180

AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACAACACCCAGCCCACTCAAGGATAT AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATAT

130

60

GGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTAT

Conservative

59.8%;

Pred. No. 0; 0; Mismatches

몂 64; 4;

Indels Length

221; 1783;

Gaps

w

GGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCATCCATGGATTACAGTACCTAT

```
RESULT 5
US-09-949-016-1954
                                                                                                                               1991
                                                                                                                                                                          1702
                                                                                                                                                                                                                                                                                                                                                1582
                                                                                                                                                                                                                                                                                                                                                                                         1811
                                                                                                                                                                                                                                                                                                                                                                                                                                   1522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1402
                                                                                                                                                                                                                                                                                                        1871
                                                                                                           GAGCGCAGAGATCGGCCCTACTAG 2014
                                                                                                                                                                                                 GGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAG
                                                                                                                                                                                                                                                             TTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATG
                                                                                                                                                                                                                                                                                 TTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGGCCCCTTGGACCTTTGATGGAACAGATG
                                                                                                                                                                                                                                                                                                                                                GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                             GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGGCATGGACCGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCTTCCTCCCGCCACCCTTTCCGCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAA 1461
                                                                                       GAGCGCAGAGATCGGCCCTACTAG 1785
                                                                                                                                                                        GGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGA
                                                                                                                                                                                                                       1990
                                                                                                                                                                                                                                                                                                        1930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1750
                                                                                                                                                                                                                                                               1701
                                                                                                                                                                                                                                                                                                                                                1641
                                                                                                                                                                                                                                                                                                                                                                                           1870
                                                                                                                                                                                                                                                                                                                                                                                                                                     1581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1521
```

```
GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-08

PRIOR FILING DATE: 2000-10-08
; SOFTWARE: FastSEQ for Windows
; SEQ ID NO 1954
; LENGTH: 1783
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-1954
                                                                                                                                                                                    Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AND USES THEREOF
```

Ŷ.

```
ş
                               밁
                                                S
                                                                       밁
                                                                                     S
                                                                                                              밁
                                                                                                                              S
                                                                                                                                                       밁
                                                                                                                                                                       S
                                                                                                                                                                                                문
                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                          र्
                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઈ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
          1331
                                                                                                                                                                            1091
                                1042
                                                                                                                                   1151
                                                                                                                                                                                                                     1031
                                                                                           1211
                                                                       982
                                                                                                                922
                                                                                                                                                        862
                                                                                                                                                                                                 827
                                                                                                                                                                                                                                                             971
                                                                                                                                                                                                                                                                                                                                              851
                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                      791
                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                               731
TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCT 1390
                                                                                   AACAAGAGAAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAACAGGAAAGCCC 1270
                                                                                                                         GACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG
                                                                                                                                                                  CCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAAT
                                                                                                                                                                                                           CGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGC 1090
                                                                                                                                                                                                                                                                                                                                                                              GCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGG 1330
                                                                                                                                                        CCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAAT
                                                                                                                                                                                                                                                                                                                                                                GCTCCAAGTCAGTATAGCTAACAGAGCAGCAGCTACCGGGCAGCAGA------
                                                                                                                                                                                                                                                                                                                                                                                                          AGCAGCTATGGGCAGCTGCCTCCCACTAGTTACCCACCCCAAACTTGATCCTACAGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAA 730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGCCAGTAGCCACTGCACCTACAAGACCGCAGAATGGAAAACAAGCCCACTGAGACTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCTCCTATGCAGCTCAATCTGCATATGGCACTCAGCCTGCTTATCCAGCTTATGGGCAG
                                                                       AACAAGAGAACTGAGCAACCCATGATCCACACCTACCTGGACAAGGAAACAAGAAAGCCC
                                                                                                                GACAATGTGACTCTAGATGATCTGGTAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG
                                                                                                                                                                                                                                                             GGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAG 1030
                                                                                                                                                                                                                                                                                                     GAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGATCGT
                                                                                                                                                                                                                                                                                                                                              GACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGA 910
                                                                                                                                                                                                                                                                                                                                                                                                                              AGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAA 790
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGCAGAACACCTATGGGAAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCAGTTATCCCCAGGTACCTGGGAGCTACTCCATGCAGCCAGTCACCGCACCTCCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TACCCT
                                                                                                                                                                                                 ----GACCCATGGATGAAGGACCAGATCTTGATCTAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTACCAGCTATTCCTCTACACAGCCAACTAGTTATGATCAGAGCAGTTACTCT
                               1101
                                                                        1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                981
                                                                                                                                                        921
                                                                                                                                                                                                 861
                                                                                                                                                                                                                                         826
                                                                                                                                                                                                                                                                                                                         826
                                                                                                                                                                                                                                                                                                                                                                  826
                                                                                                                                                                                                                                                                                                                                                                                      850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           370
                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ġ
                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
```

```
1462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1342
1760
                                         1991
                                                                                          1700
                                                                                                                                                                                     1641
                                                                                                                                                                                                                                    1871
                                                                                                                                                                                                                                                                                  1582
                                                                                                                                                                                                                                                                                                                              1811
                                                                                                                                                                                                                                                                                                                                                                          1522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1102
                                            GAGCGCAGAGATCGGCCCTACTAG
                                                                                                                                                                                                                                                                                                        GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCCGTGGTGGCCGGGGCATGGACCGAGGTGGC 1870
                                                                                                                                                                                                                                                                                                                                                                                                        GCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCCAAAGCCTGAA 1690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGGACCCATGGGTCGCATGGGAGGC 1510
                                                                                                                GGAGGAAGAAGAAGAAGGACGTGGAAGAACTGGAAAAATGGATAAAAGGCGAGCACCGTCAG 1990
                                                                                                                                                                                                             TTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGGGCCCCTTGGACCTTTGATGGAACAGATG 1930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCTTCCCTCCCGCCACCCTTTCCGCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAAACCAGAACTTCGCCTGGAGAACAGAGAGCAACAAGTGTAAGGCTCCAAAGCCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCCAATCCGGGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCGAGGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCTGCGGAGGTCCAGGAGGCCCAGGAAGTCCTGGGGGACCCATGGGTCACATGGAGGC
GAGCGCAGAGATCAGCCCTACTAG
                                                                                          GGAGGAAGAAGAGGAGGACGTGAAGGACCT
                                                                                                                                                                                                                                                                                  GGTGGCTGTGGTAGAGACAGAAGTGGCTTCCGTGGTGG-CTGGGCATGGACCGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                             GGCATGTGGGGAGGAAGAGGTGGCCTCATGGATCATGGTGGTCCCGGTGGAATGTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCTTCCTCCCGCCACCCTTCCCACCCCCGGGTGGTGATCATGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGTGGAGGAGATAGAGGAGGCCTCCCTCCAAGAGGACCCCAGGGTTCCCGAGGGAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGTGAACAGTATGCAGGGTATGCCACCCCGTGAGGGCAGAGGGATGCCACCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCA 1450
                                                                                                                                                                                       TTTGGTGGAGGAAGACAAGGTGGCCCTGGGGGGGCCCCC-GGACCTTTGATGTAACCAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTGGAGGAGGAAACGTCCAGCACCAAGCTGGAGACAGGCAGTGTCCCCAATCCGGGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  {	t TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCTCTTGCTCGGAAGAGGCCT 1161
                                            2014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1521
                                                                                                                                                                                                                                                                                                                                                                          1581
                                                                                                                                                                                                                                                                                                                                                                                                                         1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1221
                                                                                                                                                                                                                                                                                  1640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1630
                                                                                                                                                                                     1699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1281
```

WESULT 6
US-08-437-027-18
US-08-437-027-18
Sequence 18, Application US/08437027
Patent No. 5670317
GENERAL INFORMATION:
APPLICANT: Landanyi, Marc
APPLICANT: Landanyi, Marc
APPLICANT: Landanyi, Marc
ITILE OF INVENTION: A DIAGNOSTIC TEST FOR TEST FOR TITLE OF INVENTION: SMALL ROUND CELL TUMOR
UMBER OF SEQUENCES: 21
CORRESPONDENCE ADDRESS:
ADDRESSEE: Cooper & Dunham LLP
STREET: 1185 Avenue of the Americas
CITY: New York
STATE: New York
STATE: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10036
COMPUTER READRALE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/08/437,027
FILING DATE:
CLASSIFICATION: 536

HH

DESMOPLASTIC

```
19
                                 밁
                                                         S
                                                                                           밁
                                                                                                                   Ś
                                                                                                                                               밁
                                                                                                                                                                           Ş
                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                              ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ᅜ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 212-391-0525
INFORMATION FOR SEQ ID NO: 18:
SEQUENCE CHARACTERISTICS:
LENGTH: 2412 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: White, John P
REGISTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 46416/JPW/CCA
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-278-0400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: CDNA to mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY:
                                                                                            661
                                                                                                                        680
                                                                                                                                                     109
                                                                                                                                                                                                             541
                                                                                                                                                                                                                                        560
                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                          440
                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                   380
                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                  721
                                                            740
                                                                                                                                                                                  620
                                                                                                                                                                                                                                                                                                 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    819;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ب
      CAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGT 838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATGGCACTGGTGCTTATGATACCACCACCACTGCTACAGTCACCACCACCAGGCCTCCTAT 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCCACTCAAGGATATGCACAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGAACGAGGAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCT
                                                   GGGCAGCAGCCTCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCCAAGCTCCAAGT 799
                                                                                                            ACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTAT 739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAAC
                                                                                                                                                                    ACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAAC
                                                                                                                                                                                                              CCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACCTCCATCCTACCCTCCT
                                                                                                                                                                                                                              CCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCT
                                                                                                                                                                                                                                                                       TCTAGCACAGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTAT
                                                                                                                                                                                                                                                                                         TCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGAGAACTACAGTTAT 559
                                                                                                                                                                                                                                                                                                                               GCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAA
                                                                                                                                                                                                                                                                                                                                                   GCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAA 499
                                                                                                                                                                                                                                                                                                                                                                                                                   GCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAGCAGCAGCAGCA 439
                                                                                                                                                                                                                                                                                                                                                                                                                                                TATEGCACTEGTTATEATACCACCACTECTACAGTCACCACCACCAGGCCTCCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   34.3%; Score 819; DB 1; Length 2412; ilarity 100.0%; Pred. No. 2.5e-206; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                     660
                                                                                                                                                                                  679
                                                                                                                                                                                                                                        619
                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               139
                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
```

```
; LENGTH: 35784
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-16785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                    뭉
                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
S
                                         문
                                                                            S
                                                                                                                밁
                                                                                                                                                S
                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-949-016-16785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 16785, Appatent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: FastSEQ for Windows Version SEQ ID NO 16785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: VENTER, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 665; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS
FILE REFERENCE: CLOOL307
CURRENT ADDITORMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        33321
                                                                                                                                                                                                                                                              33561
                                                                                                                                                                                                                                                                                                                                                                                                           33441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           33261 GACTGCTTTCGCCCTGCTATTCTCACCTTAGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                             1871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1691 GGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781 CAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGT 819
         GAGCTGCATTGACTACCAGATTTATTTTTTAAACCAGAAAATGTTTTAAATTTATAATTC
                                                                                                                                                                                                                                                                                                                                                        TTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATG 33500
                                                                                                                                                                                                                                                                                                                                                                                                                                TTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATG 1930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTGGCCGTGGTGGAGACAGAGGTGGCCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC 33440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC 1870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGA 1810
                                                                                                                                                                                       GTCCTCATGTCTCTAGGAAGCTTGTGATAGTGGTTGGGAGGAGCCAGGAAGGGGCCACCTG 33680
                                                                                                                                                                                                                                                              ----AGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCA 2030
                                                                                                                    GGGGCTCTGGAAGGGCTTCCTCACCCCTTCCCATTCTAACCGAAGGGCCCTCTTTACCTT 33740
                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Application
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 432.6; DB 4;
Pred. No. 4.1e-103;
0; Mismatches 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ASSOCIATED
OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 35784;
                                                                                                                                                                                                                               1974
                                                                                                                                                                                                                                                                                                                                                                         1974
           2090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               33320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
```

```
Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                              Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OM nucleic - nucleic search, using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                            იი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                               Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
    2388.4
2388.4
2388.4
2379.6
2141.8
1808.4
631
570
514.6
                                                                                                                                                                                                                                                              Score
                                                                                                                                                                                                                      2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Published Applications NA:*

1: /cgn2 6/ptodata/2/pubpna/US07_PUBCOMB.seq:*

2: /cgn2 6/ptodata/2/pubpna/US08_NEW_PUB.seq:*

3: /cgn2 6/ptodata/2/pubpna/US08_NEW_PUB.seq:*

4: /cgn2 6/ptodata/2/pubpna/US08_PUBCOMB.seq:*

5: /cgn2 6/ptodata/2/pubpna/US08_NEW_PUB.seq:*

6: /cgn2 6/ptodata/2/pubpna/US08_NEW_PUB.seq:*

7: /cgn2 6/ptodata/2/pubpna/US08_NEW_PUB.seq:*

8: /cgn2 6/ptodata/2/pubpna/US08_NEW_PUB.seq:*

8: /cgn2 6/ptodata/2/pubpna/US08_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-791-017A-1
2390
1 agagggagacggacg
    100.0
99.9
99.9
99.9
91.2
89.6
75.7
75.7
26.4
23.8
21.5
                                                                                                                                                                                                                                                          Match Length DB ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     February 20, 2005, 11:50:34 ; Search time 1257.76 Seconds (without alignments)
11231.185 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5384158 seqs, 2955248155 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GenCore version 5.1.6 Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                               /cgn2_6/ptodata/2/pubpna/US09A_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US09B_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US09B_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US09NEW_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10A_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10A_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10_PUBCOMB.seq:*
    2390
2390
2390
2390
2273
2276
1988
1988
2299
540
                      18 US-10-791-017A-1
9 US-09-880-107-3769
10 US-09-960-706-1081
10 US-09-873-319-717
9 US-09-822-830A-41
9 US-09-822-830A-49
17 US-10-984-749-1074
18 US-10-485-115-182496
14 US-10-198-846-9847
9 US-09-864-761-8001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₩
                                                                                                                                                                                                                                                                                                                            SUMMARIES
Sequence 1, Appli
Sequence 3769, Ap
Sequence 1081, App
Sequence 717, App
Sequence 410, App
Sequence 49, Appl
Sequence 1074, Ap
Sequence 182496,
Sequence 9847, Ap
Sequence 8001, Ap
Sequence 27690, A
                                                                                                                                                                                                                                                            Description
```

	c										ი						ი	a							a	•					a		
45	44	43	42	41	40	39	38	37	ω O	35	3 4	ω u	3 2	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
129.4	129.6	131.8	144	175.2	175.2	175.2	181	181	181	181	181	187	188	188	245.4	253	254.2	258.4	258.4	267.4	269.8	309	313	313	343.8	358.2	358.2	370.6	384.6	399.4	411.6	435.4	480.2
л	5.4	წ	•	•		7.3	7.6	7.6	7.6	7.6	7.6	7.8	7.9	7.9	10.3	10.6	10.6	10.8	10.8	11.2	11.3	•	13.1		14.4	15.0	15.0	15.5	σ	16.7	17.2	8	20.1
43712	147	483	187	1939	1824	1822	3132	3132	3132	3132	1256	188	538	449	386	253	262	503	503	521	361	545	347	347	457	570	570	417	399	401	505	468	568
18	9	10	9	10	17	18	17	17	13	13	18	16	16	9	15	9	16	16	9	9	9	φ	17	17	18	17	13	9	9	10	9	10	10
US-10-723-860-1576	US-09-864-761-24470	US-09-918-995-2865	US-09-864-761-19297	US-09-919-039-322	US-10-439-703-58	US-10-755-889-649	US-10-027-632-114301	US-10-027-632-111655	US-10-027-632-114301	US-10-027-632-111655	US-10-723-860-8052	US-10-029-386-17973	US-10-029-386-4273	US-09-864-761-2572	US-10-101-510-297	US-09-864-761-25438	US-10-029-386-18163	US-10-029-386-4463	US-09-864-761-8728	US-09-933-797-481	US-09-960-352-3851	US-09-925-301-669	US-10-085-783A-31212	US-10-242-535A-31212	US-10-469-285-488	US-10-027-632-124982	US-10-027-632-124982	US-09-960-352-10259	US-09-864-761-24705	US-09-918-995-3868	US-09-864-761-7766	US-09-918-995-19709	US-09-918-995-9557
Sequence 1576, Ap	24470,	Sequence 2865, Ap	19297,			Sequence 649, App				111659			Sequence 4273, Ap	Sequence 2572, Ap	Sequence 297, App	Sequence 25438, A	Sequence 18163, A	Sequence 4463, Ap	Sequence 8728, Ap	Sequence 481, App	Sequence 3851, Ap	669,		3121			æ	_	4705	e 3868	Sequence 7766, Ap	1970	Sequence 9557, Ap

ALIGNMENTS

US-10-791-017A-1

```
; LENGTH: 2390
; TYPE: DNA
; ORGANISM: Homo sapiens
; PEATURE:
; PANYE/KEY: CDS
; LOCATION: (44)..(2011)
; OTHER INFORMATION: EWS
US-10-791-017A-1
밁
                             S
                                                                               밁
                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: JENAPHARM GmbH & CO. KG
TITLE OF INVENTION: Methods for Determining Hormonal Effects of Invention: Methods for Determining Hormonal Effects of Invention of Section 1912.

FILE REFERENCE: Pat 3684/11
CURRENT APPLICATION NUMBER: US/10/791,017A
CURRENT FILING DATE: 2004-03-02
NUMBER OF SEQ ID NOS: 7
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 1
LENGTH: 2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1, Application US/10791017A
Publication No. US20040197827A1
GENERAL INFORMATION:
                                                                                                                                                                 Query Match 100.0%; Score 2390; Best Local Similarity 100.0%; Pred. No. 0; Matches 2390; Conservative 0; Mismatches
63
CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGCTACAGTGCTTACACCGCCCAGCCCAC
                    CAGTACCTATAGCCAAGCTGCAGCGCAGCAGCCAGCCCAC
                                                                                                             AGAGGGAGACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAAATGGCGTCCACGGATTA 60
                                                                                 AGAGGGAGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTA
                                                                                                                                                                                                              DB 18;
                                                                                                                                                                     0,
                                                                                                                                                                                                              Length 2390;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of Substances
                                                                                                                                                                     0
                                      120
120
                                                                                 60
                                                                                                                                                                     0
```

ち 음 ち

용 **성** 용

8 8 8 8

8 8 8 8

CRCRCCAGGCCCTCCTATGAGCCACTGCACCTACAAGACCGCAGGATTCACAGGCCTTGCAGCCAGC	121 TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA 180 121 TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA 180 181 GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA 240 181 GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA 240 181 GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA 240 241 TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTGCCACCTGCAGCCCCCAGGCATA 300 1
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2 2
1441 GCCACCACACTORAGGGCAGAAACACTTCCCTCCAAGAACCCCAAGGCCCATCCCATCCCTCCAAGAACACCCCCCCC	

음 성 음

Ś

8 8 8

8 8 8 8 8

음 *성*

GENERAL INFORMATION: APPLICANT: Vockley, Joseph G. APPLICANT: Vockley, Joseph G. APPLICANT: Vockley, Joseph G. APPLICANT: Vockley, Joseph G. APPLICANT: Scheff; D. APPLICANT: Vockley, Joseph G. APPLICANT: Vockley, Jos		Db 2281 GTGGAGAACCAAGAGGGCCTCTTAACTGTAACAATGTTCATGGTTGTGATGTTTTTTTT
Db 661 OAPTHACTCTICAGANACACCTATICGGCAACCGAACCGAACTCTCCACCCCAAACTCGATTCTCCAAACTCGATTCCCAAACTCCCAAACTCCCAAACTCCCAAACTCCCAAACTCCCAAACTCCAAACTCCCAAACTCCCAAACTCCCAAACTCCCAAACTCCCAAACTCCCAAACTCCCAAACTCCAAACTCCCAAACTTCCCAAACTCCCAAACTCCCAAACTCCCAAACTTCCCAAACTCCCAAACTTCCCAAACTCCCAAACTTCCCAAACTCCCAAACTTCCCAAAACTTCCCAAACTCCCAAACTTCCCAAACTCCCAAACTTCCCAAACTCCCAAACTTCCCAAACTCCCAAACTTCCCAAACTCCCAAACTTCCCAAA	601 ACCTCCATCCTACCCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG	541 ACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGC

Gaps

0

60 60

300

240 240 180

420 360 360 300

420

540 540 480 480

840

780 780 720 660 660 600 600

720

900 840

960 960 900 180

```
APPLICANT: William E:
APPLICANT: Munger, William E:
TITLE OF INVENTION: Identifying Drugs for and Diagnosis of
TITLE OF INVENTION: Gene Expression Profiles
FILE REFERENCE: 44921-5029-01US
CURRENT APPLICATION NUMBER: US/09/960,706
CURRENT FILING DATE: 2001-09-24
PRIOR APPLICATION NUMBER: 60/223,323
PRIOR APPLICATION NUMBER: 60/223,323
PRIOR APPLICATION NUMBER: 09/873,319
PRIOR FILING DATE: 2000-08-07
PRIOR FILING DATE: 2001-06-05
NUMBER OF SEQ ID NOS: 1124
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 1081
LENGTH: 2390
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                     US-09-960-706-1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                   Sequence 1081, Application US/09960706 Publication No. US20030134280A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAAATGGTTGTTTAAGACTTTAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACTACCAGATTTATTTTTTAAACCAGAAAATGTTTTAAAATTTATAATTCCATATTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGAGCTGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAAATGGATAAAGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA 1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAAGCCTGAAGGCTTCCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACTACCAGATTTATTTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGGAGAACCAAGAGGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           {f A}{f A}{f A}{f A}{f T}{f G}{f T}{f T}{f T}{f A}{f G}{f G}{f A}{f A}{f C}{f C}{f C}{f T}{f T}{f G}{f A}{f G}{f C}{f A}{f T}{f G}{f C}{f A}{f T}{f C}{f A}{f T}{f A}{f C}{f A}{f C}{f 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGTTGGCCACACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCC
                                                                                                                                                                                                                                                                              of Benign
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2390
                                                                                                                                                                                                                                                                              Prostatic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1680
                                                                                                                                                                                                                                                                              Hyperplas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; ORGANIAM: Homo sapiens
FEATURE:
OTHER INFORMATION: Genbank Accession No. US20030134280A1 X66899
US-09-960-706-1081
                                                                                                        B
                                                                                                                                               Ś
                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ंठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                          밁
                                                          δ
                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 2389;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                            901
                                                                   901
                                                                                                             841
                                                                                                                                                    841
                                                                                                                                                                                               781
                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        51
                                                      CGGACCAGGAGAAACCGGAGGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGAGGGGG
                                                                                                             CAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTA
                                                                                                                                                                                                                                                                                                                                                                                         CAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCTCCATCCTACCCTACCCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGAGACTAGTCAACCTCAATCTAGCACAGGGGGGTTACAACCAGCCCAGCCTAGGATATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTATGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTATGGGCAGCAGCCAGCCAGCCGCACCTACAAGACCGCAGGATGGAAACAAGCCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCCAGGCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGAGGGAGACGGACGTTGAGAGAACGAGGAGGAGGAGAAAAATGGCGTCCACGGATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAGGGAGACGGACGTTGAGAGAAACGAGGAGGAGGAGAGAAAATGGCGTCCACGGATTA
                                                                                                                                                                                                                                       CTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCTACGGGCAGCAGAGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NGCAGCCAGCAGCCACCTACAAGACCGCAGGATGGAAACAAGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 2388.4; ; Pred. No. 0; O; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 2390
```

S

음 성

문

음 성

8 8

```
1681
                                                                                                                                                                                                                                                                                                                                                                                                    1681
                                                                                                                                                                                                                                                                                                                                                                                                                                       1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1361
                                  1981
                                                                                                    1921
                                                                                                                                   1921
                                                                                                                                                                    1861
                                                                                                                                                                                                   1861
                                                                                                                                                                                                                                    1801
                                                                                                                                                                                                                                                                   1801
                                                                                                                                                                                                                                                                                                     1741
                                                                                                                                                                                                                                                                                                                                    1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081
   2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             961
GACTACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATA, 2100
                                                                                                                                                                                                                                                                                                                                                                                     AAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGG 1740
                                                                                                                                                                                     CCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCCTGGGGGGCCCCCTGGACCTTTGAT 1920
                                                                                                                                                                                                                                                   AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA 1860
                                                                                                                                                                                                                                                                                                                   TGGCCCTGGTGGCATGCGGGAGGAGAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGG 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAA 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATGGGAGGCCGTGGAGGAGTAGAGGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATGGGAGGCCGTGGAGGAGATAGAGGGGGCTTCCCCTCCAAGAGGGACCCCGGGGTTCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCACCACCCCTCGGGGGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCACCACCACTCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGGACCCATGGGTCG 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATT
                                                     GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGAGACTT
                                                                                                  GGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAAGAAAAATGGATAAAGGCGA
                                                                                                                       GGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCCA 1980
                                                                                                                                                                                                                                  AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA 1860
                                                                                                                                                                                                                                                                                                  TGGCCCTGGTGGCATGCGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGG
                                                                                                                                                                                                                                                                                                                                                                  AAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGG 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGGAACCCCTCTGGAGGAGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCAT 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCG 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAC 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       . 1980
                                                                                                                                                                                                                                                                                                    1800
                                                                                                                                                                                                                                                                                                                                                                                                                                    1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1200
                                2040
                                                                                                                                                                  1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1080
                                                맑
                                                                            S
                                                                                                                ₽
                                                                                                                                          8
                                                                                                                                                                              밁
                                                                                                                                                                                                          S
                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                        ঠ
     ∙ છ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               よ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
```

S 밁 र् 밁 र् 밁 S 문 S 밁 र् 밁 ð 닭 S 밁 र् 밁 र् 밁 S 문 5 밁 S 밁 र् 밁 S

```
APPLICANT: Munger, William E.
APPLICANT: Munger, William E.
APPLICANT: Kulkarni, Prakash
APPLICANT: Waga, Iwao
APPLICANT: Waga, Iwao
APPLICANT: Yamamoto, Jun
ITITE OF INVENTION: Identifying Drugs for and Diagnosis of Benign Pros
ITITE OF INVENTION: Hyperplasia Using Gene Expression Profiles
ITITE OF INVENTION NUMBER: US/09/873,319A
CURRENT FILLING DATE: 2001-06-05
EARLIER APPLICATION NUMBER: US 60/223,323
EARLIER FILLING DATE: 2000-08-07
NUMBER OF SEQ ID NOS: 755
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 717
LENGTH: 2390
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
FEATURE:
FEATURE:
OTHER INFORMATION: Genbank Accession No. US20030134324A1 X66899
US-09-873-319-717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 4
US-09-873-319-717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 717, Applic
Publication No. US20
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 2389; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2041
                     241
                                                        181
                                                                                       181
                                                                                                                            121
                                                                                                                                                             121
                                                                                                                                                                                                61
                                                                                                                                                                                                                                 61
TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATA
                                                      GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA
                                                                                                                            TCAAGGATATGCACAGACCCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA
                                                                                                                                                TCAAGGATATGCACAGACCCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA
                                                                                                                                                                                                                  CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCCGCCCAGCCCAC
                                                                                                                                                                                                                                                                                      AGAGGGAGACGGACGTTGAGAGAACGAAGGAAGGAAGGAGAAAAATGGCGTCCACGGATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGTACCTATAGCCAAGCTGCAGCGCCAGCCAGCCTACAGTGCTTACACCGCCCAGCCCAC
                                                                                                                                                                                                                                                                    AGAGGGAGACGGACGTTGAGAGAAACGAGGAGGAGGAGAGAAAATGGCGTCCACGGATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Application US/09873319A
o. US20030134324A1
                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                      99.9%; Score 2388.4;
100.0%; Pred. No. 0;
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                        DB
                                                                                                                                                                                                                                                                                                                                      1;
                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2390
                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2160
                     300
                                                                                         240
                                                                                                                            180
                                                                                                                                                                                                120
                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2100
                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2220
                                                                                                                                                                                                                                                                                                                                       0
```

1321 CGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCG 1380	1201 TGTTAAGATGAACAAGAAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAC 1260	1081 TGATCTAGGCCCACCTGTAGATCCAGATGAACACTCTGCAACTGTACAACTAGTACA 1140	ATTGATCGTGGAGGAGTAGGAGAAGGTGGGCGGGGAGGAGGACGCGTGGAATGGCAGACGAGTGGACAGAGGACCAGATCTCAGAGAGGAGGAGGAGGACGAGGACCAGATCTCAGAGAGGAGGACCAATCTCGGAGAGGACGAGGACCAATCTCGGAGAAGGACCAATCAAT		781 CTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCAGCAGAGCAGAGTTC 840	661 CAGITACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTA 720 721 TGGTCAACAAAGCAGCTATGGGCAGCCTCCCACTAGTTACCCACCC	541 ACAGAGTAACTACAGTTATCCCCAGGTACCTGGAAGCTACCCCATGCAGCCAGTCACTGC 600 601 ACCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG 660 601 ACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG 660 601 ACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG 660 661 CAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCTAGGACAGCAGAGTAGCTA 720	81 TGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGG 5	361 CACCACCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC 420	301 CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCAC 360
RESULT 5 US-09-822-830A-410/c ; Sequence 410, Application US/09822830A	Oy 2281 GTGGAGAACCAAGAGGGCTCTTAACTGTAACAATGTTCATGGTTGGT	2161 GAAGAAACATTAAAACAAGTTAAATGGTAGTGCGGAGTTTTTTTT	Qy 2101 ANGITAGCACACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGT 2160 Qy 2101 ANGITAGCCACAACATTATGATTATTCCTTGTCTGTACTTTTAGTATTTTTTCACCATTTGT 2160 Db 2101 ANGITAGCCACAACATTATGATTATTCCTTGTCTGTACTTTTTTTT	1981 GCACCGTCAGGAGCCCAGAGATCGGCCCTACTAGATGCAGAGCCCCGCAGAGCTGCATT	1861 CCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCCTGGACCTTTGAT 1921 GGAACAGATGGGAAGAAGAAGAGGACGTGGAGGACCTTGGATAAATGGATAAAGGCGA 1921 GGAACAGATGGGAAGAAGAAGAGAACGTGGAGGACCTTGGAAAAATGGATAAAGGCGA	Db 1741 TGGCCCTGGTGGCATGCGGGAGGAGAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGG 1800 Oy 1801 AATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGA 1860	1681 AAAGCCTGAAGGCTTCCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAAAGG		1441 GCCACC 1501 CATGGG 1501 CATGGG	Qy 1381 GAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCAT 1440

र्

밁 δ 밁 र् 밁

S

밁 S 밁 ક 밁 Ś 밁 S 밁 S 문

Ś 닭 δ Ś

밁 S ş

S 맑 5 뮹 S

S

밁

```
APPLICANT: AGOSTINO, MICHAEL J.
APPLICANT: Howes, Steven H.
APPLICANT: Resnick, Richard J.
APPLICANT: Gulukota, Kamalakar
APPLICANT: Graham, James R.
ITITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECTORENT APPLICATION NUMBER: US/09/822,830A
CURRENT APPLICATION NUMBER: US/09/822,830A
CURRENT FILING DATE: 2001-03-29
PRIOR APPLICATION NUMBER: 60/195,604
PRIOR APPLICATION NUMBER: 60/195,604
PRIOR FILING DATE: 2000-04-06
NUMBER OF SEQ ID NOS: 631
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 410
LENGTH: 2273
TYPE: DNA
ORGANISM: Homo Sapiens
US-09-822-830A-410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Patent No. US200222;
; GENERAL INFORMATION:
; APPLICANT: Genetics Institute, Inc.
; APPLICANT: Wong, Gordon G.
; APPLICANT: Wong, Hilary
; APPLICANT: Fechtel, Kim
poplicant: Agostino, Michael J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                밁
                                 ર્
                                                                    밁
                                                                                       र्
                                                                                                                     밁
                                                                                                                                                 श्
                                                                                                                                                                                 밁
                                                                                                                                                                                                     5
                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                             र्
                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                   र्
                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                     र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 2259; Conserv
                                                                                                                                                                                                                                          1908
                                                                                                                                                                                                                                                                                                1968
                                                                                                                            1788
                                                                                                                                                                                  1848
                                                                                                                                                                                                                                                                                                                                                      2028
                                                                                                                                                                                                                                                                                                                                                                                                              2088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2268
                1668
                                                                    1728
                                                                                                582
                                                                                                                                                      522
                                                                                                                                                                                                              462
                                                                                                                                                                                                                                                                      402
                                                                                                                                                                                                                                                                                                                          342
                                                                                                                                                                                                                                                                                                                                                                                  282
                                                                                                                                                                                                                                                                                                                                                                                                                                        222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        102
                                           642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCACCACTGCTACAGTCACCACCCAGGCCTATGCAGCTCAGTCTGCATATAGGCA
                                                                                                                                                                                                                                                                                                                                                                      CAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATA
                                                                                                                                                                                                                                                                                                                                                                                                                           CCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAA
                              CGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCT
                                                                                                                            AGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACC
                                                                                                                                              AGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACC
                                                                                                                                                                                  AGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACC
                                                                                                                                                                                                                                                          GCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAA
              CGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCT 1609
                                                                    CCATGCAGCCAGTCACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGC
                                                                                      CCATGCAGCCAGTCACTGCACCTCCATCCCTACCCTCCTACCAGCTATTCCTCTACACAGC
                                                                                                                                                                                                             AGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACC
                                                                                                                                                                                                                                           CTCAGCCTGCT
                                                                                                                                                                                                                                                                                                CCACCACTGCTACAGTCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCA
                                                                                                                                                                                                                                                                                                                                                                                                              CCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    91.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 2179.6;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SECRETED PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . 1909
                                                                                                                                                                                                                                                                                                                                                      1969
                                                                                                                                                                                                                                                                                                                                                                                                              2029
                                           701
                                                                    1669
                                                                                                                            1729
                                                                                                                                                                                  1789
                                                                                                                                                                                                                                                                    461
                                                                                                                                                                                                                                                                                                                          401
                                                                                                                                                                                                                                                                                                                                                                                                                                          281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2209
                                                                                                641
                                                                                                                                                      581
                                                                                                                                                                                                             521
                                                                                                                                                                                                                                        1849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                 멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
S
                           吊
                                                 δ
                                                                         뭥
                                                                                                   5
                                                                                                                                  В
                                                                                                                                                            δ
                                                                                                                                                                                              문
                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                          1542
                                                                                                                                                                                                                                                                                 1482
                                                                                                                                                                                                                                                                                                                                         1422
                                                                                                                                                                                                                                                                                                                                                                                              1362
                                                                                                                                                                                                                                                                                                                                                                                                                           1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1548
                                                                                                             1662
                                                                                                                                                                     1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1428
                                                                                                                                                                                                                                                       831
                                                                                                                                                                                                                                                                                                             891
                                                                                                                                                                                                                                                                                                                                                                     951
                           642
                                                                                   651
                                                                                                                                                                                                 771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          702
 ATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCC
                                                                                                             GCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGG
                                                                                                                                      GAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGT
                                                                                                                                                                                                              GAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTG
                                                                                                                                                                                                                                                                      CTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGAGATAGAGGAGGCTTCCCTCCAA
                                                                                                                                                                                                                                                                                                                             CCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTC
                                                                                                                                                                                                                                                                                                                                                                                     TTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                          TCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCTACCTGGACAAGGAAACAGGAAAGGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGGCAGGGGAAGAGGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTACGGGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTACGGGCAGAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCCACCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCAGCCTCCCACTAGTT
                           GTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGG
                                           GTGGTGATCGTGGCAGAGGTGGCCCTCATGG
                                                                                                                                                                                               GAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTG
                                                                                                                                                                                                                                                      CTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAA
                                                                                                                                                                                                                                                                                                             CCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCCAGGAGGTC
                                                                                                                                                                                                                                                                                                                                                                     TTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACA 1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACGCGGTGGAATGG----GCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGAGTCTGGAGGATTTTCCGGACCAGGAGAACCGGAGCATGAGTGGCCCCTGATAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGGCAGGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACA
                                                       1781
                                                                                                               1721
                                                                                                                                                                                                                          1601
                                                                                                                                                                                                                                                                                 1541
                                                                                                                                                                                                                                                                                                             832
                                                                                                                                                                                                                                                                                                                                        1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           761
                                                                                                                                                                     1661
                                                                                                                                                                                                                                                                                                                                                                     892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1252
                             583
                                                                                                                                                                                                                                                                                                                                                                                               1421
                                                                                                                                                                                                                                                                                                                                                                                                                           952
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1549
                                                                                   643
                                                                                                                                                                                                                                                       772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            881
```

Ş

S

152

2112

1992 212

272

```
RESULT 6
US-09-822-830A-49/c
; Sequence 49, Application US/09822830A
; Patent No. US20020142952A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
S
                                                                                                 ; TYPE: DNA
; ORGANISM: HOMO
US-09-822-830A-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     श
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                         APPLICANT: Genetics Institute, I APPLICANT: Wong, Gordon G. APPLICANT: Clark, Hilary APPLICANT: Rechtel, Kim APPLICANT: Agostino, Michael J. APPLICANT: Resnick, Richard J. APPLICANT: Resnick, Richard J. APPLICANT: Gulukota, Kamalakar
                                 Query Match
Best Local Similarity
Matches 2154; Conserva
                                                                                                                                                     SEQ ID NO 49
LENGTH: 2176
                                                                                                                                                                                 APPLICANT: Graham, James R.

TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS
FILE REFERENCE: GIN 6402
CURRENT APPLICATION NUMBER: US/09/822,830A
CURRENT FILING DATE: 2001-03-29
FRIOR APPLICATION NUMBER: 60/195,604
PRIOR APPLICATION NUMBER: 60/195,604
PRIOR FILING DATE: 2000-04-06
NUMBER OF SEQ ID NOS: 631
SOFTWARE: Patentin Ver: 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     42
 33 AAGGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGG 92
                                                                                                                                                                                                                                                                                                                                       Fechtel, Kim
Agostino, Michael J.
Howes, Steven H.
Resnick, Richard J.
Gulukota, Kamalakar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCGCAGAGATCGGCCCTACTAGATGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACCCCGCAGAGCTGCATTGACTACCAGATTTATTTTTTAAACCAGAAAAATGTTTTTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGAGGACGTGGAGGACCTG 1961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTTGTGATGTTTTTTTTTTTTTAAAATAAATTCCAAA 2363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGCATGCTCAGTATCATTGTGGAGAACCAAGAGGGCCTCTTAACTGTAACAATGTTCAT 232:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTTTTTTTCTTCCTTCTTTTAAAAATGGTTGTTTAAGACTTTAACAATGGGAACCCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTATTTTTCACCATTTGTGAAGAAACATTAAAACAAGTTAAATGGTAGTGTGCGGAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTATAATTTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCCCGCAGAGCTGCATTGACTACCAGATTTATTTTTAAACCAGAAAATGTTTTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTATAATTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTATTTTTCACCATTTGTGAAGAAACATTAAAACAAGTTAAATGGTAGTGTGCGGAGTT
                                   Conservative
                                                89.6%;
                                 0;
                                 Score 2141.8;
Pred. No. 0;
0; Mismatches
                                                                   띪
                                 2
                                                                   9;
                                   Indels
                                                                   Length
                                 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                 Ś
                                                 뭆
                                                                                 δ
                                                                                                                     밁
                                                                                                                                                ঠ
                                                                                                                                                                                         밁
                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2111 GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG
                     1113
                                                                                                                                                                                          1272
                                                                                                                                                                                                                                                              1332
                                                                                                                                                                                                                                                                                                                                1392
                                                                                                                                                                                                                                                                                                                                                                                                  1452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      273
                                                                                                                                                       993
                                                                                                                                                                                                                                                                                              873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG
ACTCTGACAACAGTGCAATTTATGTACGAGGATTAAATGACAGTGTGACTCTAGATGATC
                                                                       GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG 1112
                                                                                                                                                                                                                                                                                   TTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAAACCGGAGCATGAGTGGCC
                                                                                                                                                                                                                                                                                                                                AGAGCAGCTACGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                  CCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCCTACCCTACCAGCTATTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAAGACCGCA-GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAAGACCGCAGGATGGAAACAAGCCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTATGATACCACCACTGCTACAGTCACCACCACCAGGCCTCCTATGCAGCTCAGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTATGATACCACCACTGCTACAGTCACCACCACCACGCCTCCTATGCAGCTCAGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATACTACTCCAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATACTACTCCAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG
                                                                                                                                          GGGGAGGAGGACGCCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTG
                                                                                                                                                                                          CTGATAACCGGGGCAGGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGC
                                                                                                                                                                                                                CTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGC
                                                                                                                                                                                                                                                              TTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAACCGGAGCATGAGTGGCC
                                                                                                                                                                                                                                                                                                                                                                AGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                  CCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAGCTACCCCATGCAGCCAGTCACTGCACCTCCTACCCTACCAGCTATTCCT
                                                                                                                        GGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTG
```

812

1453

752 1513 692 1573

632

1393

1052 1213 992 1273 932 1333 872

1153

1172 1093 1693

512

572

1633

1752

```
2073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1032
                                                                      2133
                                                                                                                                                                                                                                          2013
                                                                                                                                                                                                                                                                                                                              1953
                                                                                                                                                                                                                                                                                                                                                                                                               1893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1353
                                                                                                                                                                                                   192
                                                                                                                                                                                                                                                                                                                                                                                                                                                        372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1092
                                                                                                               132
                                                                                                                                                                                                                                                                                                                                                                     312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               972
                                72
                                                                                                                                                                                                                                                                                                            GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCCGGCCCTACT 2012
                                                    CTGTACTTTAGTATTTTTCACCATTTGTGAAGAAACATTAAAACAAGTTAAATGGTA 2189
                                                                                                                                     GTTTTAAATTTATAATTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGT 2132
                                                                                                                                                                                                                           GCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAAGAAGAAGACTG 1953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAAGGTG 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAACAGAGTGCAACCAGTGTAAGGCCCCAAAGGCCTGAAGGCTTCCTCCCGCCACCCTTTC 1712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGA 165:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCC 1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG 1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCT
                                                                                                                                                                                                 GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGGCGCAGAGATCGGCCCTACT
                                                                                                                                                                                                                                                                                                                                                                 GCCCTGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCTCATGGATCGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG 1832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTG 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGC 1592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGGAGGTCCTGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCC 733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGAAGACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAG 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCA 1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATC 1033
                                                                                                               GTTTTAAATTTATAATTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTTGAAGGCTTCCTCCCGCCACCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGC 613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAAGGCGATGCCACAGTGTCCT 129
                              CTGTACTTTAGTATTTTTCACCATTTGTGAAGAAACATTAAAACAAGTTAAATGGCA 16
                                                                                                                                                                                                                                                                                  193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            853
                                                                                                               73
                                                                                                                                                                                                                                                                                                                                                                     253
                                                                                                                                                                                                                                                                                                                                                                                                                                                      313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   973
                                                                                                                               뭐
                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
S
                                                맑
                                                                              ঠ
                                                                                                                                                                    8
                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 75.7%;
Best Local Similarity 92.2%;
          453
                                                  361
                                                                                         393
                                                                                                                                   301
                                                                                                                                                                           333
                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                            273
                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                               213
                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      33 AAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCACAGG
                                                                            CATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAGCAGCAGCAGCAGCACTGCACCTA 452
                                                                                                                                   CTTATGATACCACCACTGCTACAGTCACCACCCAGGCCTATGCAGCCTCAGTCTG
                                                                                                                                                                CTTATGATACCACCACTGCTACAGTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTG
                                                                                                                                                                                                                  ATACTACTCCAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCCAGGCTCAGA
          CAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGG
                                                                                                                                                                                                                                                            ATACTACTCCAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTG
                                                                                                                                                                                                                                                                                                                                                 CCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT
                                                                                                                                                                                                                                                                                                                                                                                           GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCCAGGCTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
```

Score 1808.4; Pred. No. 0; 0; Mismatches

DB 17; ļ.

Length 1988; 168;

Indels

Gaps

0,

밁

Ś 밁 5 밁 ঠ 밁 ঠ 밁 ঠ 밁 5 밁 ঠ 밁 S 밁 ક 밁 8 밁 S 맑 8 유 S 밁 र् 밁 S B

RESULT 7 US-10-094-749-1074

밁

421

Ç

512

422

360 392 332

240 272 180

300

212

152

60

120

밁 S 밁 S

```
APPLICANT:
APPLICANT: HIO, YURI
APPLICANT: HIO, YURI
APPLICANT: NAGAI, KEJICHI
APPLICANT: IRIE, RYOTARO
APPLICANT: TAMECHIKA, ICHIRO
APPLICANT: TAMECHIKA, ICHIRO
APPLICANT: OTSUKA, MOTOYUKI
APPLICANT: NAGHIKAM, TSUTOMU
APPLICANT: NAGHIKAM, TSUTOMU
APPLICANT: NAGHIKAM, TSUTOMU
APPLICANT: NAGHIKAM, TSUTOMU
APPLICANT: NASUHO, YASUHIKO
TITLE OF INVENTION: NOVEL FULL-LENGTH CDNA
FILE REFERENCE: 084335/0160
CURRENT APPLICATION NUMBER: US/10/094,749
CURRENT FILING DATE: 2002-03-12
PRIOR APPLICATION NUMBER: 60/350,435
PRIOR FILING DATE: 2002-01-24
PRIOR APPLICATION NUMBER: JP 2001-328381
PRIOR FILING DATE: 2001-09-14
NUMBER OF SEQ ID NOS: 3381
SOFTWARB: PATENTIN VET: 2.1
SEQ ID NO 1074
LENGTH: 1988
TYPE: DNA
ORGANISM: Homo sapiens
US-10-094-749-1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1074, Application US/10094749
Publication No. US20030219741A1
GENERAL INFORMATION:
APPLICANT: ISOGAI, TAKAO
APPLICANT: ISOGAI, TAKAO
APPLICANT: SUGIYAMA, TOMOYASU
APPLICANT: SUGIYAMA, TOMOYASU
APPLICANT: OTSUKI, TETSUJI
APPLICANT: SATO, HIROYUKI
APPLICANT: ISHIJUKO
APPLICANT: ISHIJUKO
APPLICANT: YAMAMOTO, JUN-ICHI
APPLICANT: YAMAMOTO, JUN-ICHI
APPLICANT: HIO, YURI
APPLICANT: HIO, YURI
APPLICANT: OTSUKA, KAORU
APPLICANT: NACAT KARTU
```

```
1473
                                     1333
                                                                            1533
                                                                                                                     1273
                                                                                                                                                                                               1213
                                                                                                                                                                                                                                      1413
                                                                                                                                                                                                                                                                             1153
                                                                                                                                                                                                                                                                                                                  1353
                                                                                                                                                                                                                                                                                                                                                            1093
                                                                                                                                                                                                                                                                                                                                                                                                 1293
                                                                                                                                                                                                                                                                                                                                                                                                                                        1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1113
  1593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCCAGTAGCATGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAAC
ACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGA 1652
                                                                                                                                         CAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGAGATAGAGGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                      ATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAG 1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCT 1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCA 1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGAGACTCTAGATGATC 1172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAGCTACCCCATGCAGCCAGTCACTGCACCTCCTACCCTCCTACCAGCTATTCCT
                                                           CÁGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGAGAGGAGGCT 1332
                                                                                                                                                                                                   GTCTGCCACCCGTGAGGGCAGAGGCATGCCACCACTCCGTGGAGGTCCAGGAGGCC
                                                                                                                                                                                                                        GTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCC 1472
                                                                                                                                                                                                                                                                             GGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG
                                                                                                                                                                                                                                                                                                        GGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTG 1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGATAACCGGGGCAGGGGAAGAGAGGGGGGATTTTGATCGTGGAGGCATGAGCAGAGGTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAACCGGAGCATGAGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGAGCAGCTATGGACAGCAGGGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTG
                                     TCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGC
                                                                                                                                                                                               1272
                                                                                                                                                                                                                                                                                                                                                            1152
                                                                                                                                                                                                                                                                                                                                                                                                                                      1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . 1032
                                                                                                                                                                                                                                                                             1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               692
```

Ś 밁 S 밁 5 밁 ð 밁 8 밁 5 밁 S 밁 S 밁 S 망 S 밁 S

밁

```
멍
                                                                     8
                                                                                                      밁
                                                                                                                         Ś
                                                                                                                                                       В
                                                                                                                                                                                δ
                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   맑
               S
                                                                                                                                                                                                                                                                 1633
                                                                                                       1813
                                                                                                                                                                                                              1693
                                                                                                                                                                                                                                      1893
                                                                                                                                                                                                                                                                                             1833
                                                                                                                                                                                                                                                                                                                       1573
                                                                                                                                                                                                                                                                                                                                                 1773
                                                                                                                                                                                                                                                                                                                                                                           1513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1393
            CTGTACTTTAGTATTTTTCACCATTTGTGAAGAAACATTAAAACAAGTTAAATGGT
                                                                   GTTTTAAATTTATAATTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGT
                                                                                                                         GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGAGATCGGCCCTACT
                                                                                                                                                                                                                              GCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAAGAAGGACGTG
                                                                                                                                                                                                                                                                                GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAAGTG
                                                                                                                                                                                                                                                                                                                       GCCTCATGGATCGTGGTGCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                                                    GCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                                                                                            CGCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                          CGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCCGGGGAGGAAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                GAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                              GAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GITTIAAATTTATAATTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGT 1932
                                                                                                       GCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAAGGACGTG
                                                                                                                                                                                                                                                                  GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTG
1988
                                                                                                                                                                                                                                        1952
                                                                                                                                                                                                                                                                                                                                                  1832
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1712
                                                                                                                                  2072
                                                                                                                                                            1812
                                                                                                                                                                                     2012
                                                                                                                                                                                                                                                                                             1892
                                                                                                                                                                                                                                                                                                                       1632
                                                                                                                                                                                                                                                                                                                                                                            1572
                                                                                                                                                                                                                                                                                                                                                                                                      1772
                                                                                                                                                                                                                                                                                                                                                                                                                               1512
                                                                                                                                                                                                                                                                    1692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1452
```

```
RESULT 8
US-10-425-115-182496
US-10-425-115-182496;
Sequence 182496, Application US/10425115;
Publication No. US20040214272A1
GENERAL INFORMATION:
APPLICANT: LA ROSA, Thomas J.
APPLICANT: KOVAlic, David K.
APPLICANT: KOVAlic, David K.
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Wucleic Acid Molecules a
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21632221B
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 182496
LENGTH: 763
TYPE: DNA
ORGANISM: Zea mays
FEATURE:
NAME/KEY: unsure
LOCATION: (1)..(763)
COTHER INFORMATION: unsure at all n locations
FEATURE:
                                                                        ; OTHER INFORMATION: US-10-425-115-182496
 Query Match
Best Local S
Matches 661
   661;
                  Similarity
   Conservative
                                                                                           Clone ID:
                  26.4%;
                                                                                     MRT4577_98018C.1
                                                                                                                           all n locations
Score 631; DB 18;
Pred. No. 9.9e-151;
0; Mismatches 51;
                                    Length
   Indels
```

Molecules and Other Molecules Associated With

δ 밁 ş 밁 S 밁 S 밁 S 밁 S 멼 á

S 片

S

1.1.

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Run
                                                                                                                                                                                                                                                                                                                                                                                                                     Database
                                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OM nucleic -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying
                                                                  ი
  10
113
114
117
118
119
119
123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
2:
                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                        2314
2157
2146
2144
2113
2103
2003
2083
2083
2073
2057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB B
1860
1764.8
1898.8
989.8
976.8
956.8
956.8
934.2
934.2
935.4
935.4
                                                                                                                                                                                                                                          Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nucleic search,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        34239544 segs, 19032134700 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-791-017A-1
2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             February 20, 2005, 04:03:23; Search time 7059.46 Seconds (without alignments)
12886.762 Million cell updates/sec
                                                                                                                                                                                                                                          Match
 Copyright
                                                                                                                                                                                                                                                                                                                             gb_est3:*
gb_est4:*
gb_est5:*
gb_est6:*
gb_gss1:*
gb_gss2:*
                                                                                                                                                                                                                                                                                                                                                                                       gb_est2:*
gb_htc:*
                                                                                                                                                                                                                                                                                                                                                                                                gb_est1:*
gb_est2:*
                                                                                                                                                                                                                                          Length
         2083
2093
2073
2070
2377
2377
2269
11379
11049
11020
11021
11021
11021
11021
11021
11021
11021
11021
11031
11031
11031
11031
                                                                                                                                                                       2314
2157
2236
2159
2126
2103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GenCore version 5.1.6 (c) 1993 - 2005 Compugen
                                                                                                                                                                                                                                           몂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        chosen parameters:
                           CR594868
CR893761
AK034755
AK019460
AK019460
AK01936
BX325713
BX325713
BX325713
BX387336
BX464988
BX464988
BX464988
BX4643966
BX464396
                                                                                                                                                             CR619493
CR608666
                                                                                                                                                                                           CR604639
CR625247
                                                                                                                                                                                                              CR608375
CR604952
         BX462635
BX379802
                                                                                                                                                                                                                                           ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mode1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        68479088
                          CR608666 full-leng
CR594868 full-leng
CR593724 full-leng
CR602561 full-leng
CR602561 full-leng
CR602561 full-leng
AK014755 Mus muscu
AK014966 Mus muscu
AK014366 Mus muscu
AK014366 Mus muscu
BX325713 BX355713
BX353313 BX355713
BX353313 BX355713
BX353313 BX355713
BX367336 BX367368
BX464988 BX464988
BM473356 AGENCOURT
BX443496 BX464988
                                                                                                                                                                      CR608375
CR604952
CR604639
CR625247
CR610888
CR619493
                                                                                                                                                                                                                                          Description
                                                                                                                                                                     full-leng
full-leng
full-leng
full-leng
full-leng
full-leng
full-leng
         BX462635
BX379802
```

				a		ი	ი										ი			
45	44	4	42	41	40	39	38	37	36	35	34	ω ω	32	<u>3</u>	30	29	28	27	26	ů
903.4	903.8	904	904	904.6	904.6	906.6	907	907	908.4	910.6	912.2	916.6	917	918.2	920.2	920.8	923.2	925.2	926.4	7.8.4
37.8	37.8	37.8	37.8	37.8	37.8	37.9	37.9	37.9	38.0	38.1	38.2	38.4	38.4	38.4	38.5	38.5	38.6	38.7	38.8	38.8
1027	1040	1041	948	1068	931	962	1048	1029	962	971	1068	1009	1024	1058	1056	1031	1057	1079	1024	7070
თ	v	ຫ	v	S	ഗ	თ	ហ	Ŋ	ഗ	IJ	v	ഗ	4	4.	v	4	IJ	Ŋ	ហ	U
BX428312	BX399070	BX420692	BX424687	BX449773	BX429003	BX407870	BX381313	BQ059077	BX443095	BX407826	BX382091	BX421725	BM468711	BM802924	BQ059127	BM477969	BX353312	BX449774	BQ062138	01//76MG
BX428312	BX399070	BX420692	BX424687	BX449773	BX429003	BX407870	BX381313	BQ059077	BX443095	BX407826	BX382091	BX421725	BM468711	BM802924	BQ059127	BM477969	BX353312	BX449774	BQ062138	BM92//18
BX428312	BX399070	BX420692	BX424687	BX449773	BX429003	BX407870	BX381313	AGENCOURT	BX443095	BX407826	BX382091	BX421725	AGENCOURT	AGENCOURT	AGENCOURT	AGENCOURT	BX353312	BX449774	AGENCOURT	AGENCOURT

ALIGNMENTS

ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS REFERENCE AUTHORS RESULT 1 CR608375 LOCUS FEATURES DEFINITION Query Match Best Local Sim Matches 2314; TITLE JOURNAL REMARK TITLE JOURNAL **Bource** Direct Submission Direct Submission Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : By 191 91006 EVRY cedex - FRANCE (B-mail : seqref@genoscope.cns.fr) Heb : www.genoscope.cns.fr) 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation 1600 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 2314) Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Prill-length cDNA libraries and normalization CR608375 2314 bp mRNA linear full-length cDNA clone CSODI039YJ24 of Placenta Cot of Homo sapiens (human). division of Invitrogen Genoscope. Faraday Avenue 2 (bases 1 to 2314) Unpublished Homo sapiens CR608375.1 GI:50489182 HTC; CNSLT_cDNA. Homo sapiens (human) Similarity /clone="CSODI039YJ24" /tissue_type="Placenta_Cot /plasmid="pCMVSPORT_6" /organism="Homo sapiens" /mol_type="mRNA" /db_xref="taxon:9606" Location/Qualifiers . .2314 96.8%; Score 2314; 100.0%; Pred. No. 0; 멂 25-normalized" ω, Length 2314; HTC 21-JUL-2004 25-normalized

COMMENT

S 뭐

4

Conservative

0

Mismatches

0

Indels

0

Gaps

0

GGGAGACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAG GGGAGACGGACGTTGAGAGAAACGAGGAAGGAAGAAAAATGGCCGTCCACGGATTACAG

60

ORIGIN

음 &

유 왕 음 성

1081 TCTAGGCCGACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGG 1140	1021 TGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGA 1080 1084 TCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGG 1143	TGGAGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGA	TGATCGTGGAGGCATGAAGCAGAAGTGGGCGGGAAGGAGGACGCGGTGGAATGGGCAGCGCGCGGAATGGGCAGCAGCGCGGAATGGGCAGCAGCGCGGAATGGGCAGCAGCGCGGAAGGAA	ACCAGGAGAAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATT	844 CCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGG 903	CAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCGCTACGGGCAGCAGAGTTCATT	TCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCACCC	TTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGG	TCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAG	GAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACC 6		TGGGCAGCAGCCAGCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGA 	CACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGACTCAGCCTGCTTATCCAGCCTA 4	COAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCAC	AACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAG	AGENTIAL GENERAL CHECKERS CONTROLLED CONTROL		64 TACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCA 123
Q	δ δ	B &	Qy dy	D Q	dd dy	ob Q	Ор	₽ <i>&</i>	පි දි	da Qy	Qy dd	p Q	Q dd	δο	ъ Q	Qу	D QY	Db Db
ANTGGTTGTTTAAGACTTTAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATTGTG 2	2164 GAAACATTAAAACAAGTTAAATGGTAGTGTGGGGAGTTTTTTTT	2104 TIGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTIGTGAA 2163	2044 TACCAGATITTATATATCCAGAAAAIGTTTTAAATTTATAATTCCATATITTATAATG 2103 	1984 CCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATTGAC 2043		AGGTGGCTTTGGTGGAGGAAGAACAAGATGGCCTGGGGGGGCCCCCTGGACCTTTGATGGA		<u> </u>	~ ~			GGAAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTTCCCGAGG 		1384 GAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCC 1443	GGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAA 		1204 TAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGG 1263 	1144 ATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGT 1203

망

음 성

8

밁

皮

Ş

용 **성** 용

;

. . .

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 2
CR604952
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
 ঠ
                             밁
                                                   8
                                                                                   밁
                                                                                                         र्
                                                                                                                                           밁
                                                                                                                                                                 S
                                                                                                                                                                                                   밁
                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 2157; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2221
  304
                             241
                                                                                    181
                                                                                                               184
                                                                                                                                            121
                                                      244
                                                                                                                                                                       124
                                                                                                                                                                                                     61
                                                                                                                                                                                                                                64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (B-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)
1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was constructed by Life Technologies, a
                                                                                                                                                                                                                                                                                        4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    division of Invitrogen.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CR604952
CR604952.1 GI:50485759
HTC; CNSLT_cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CR604952
full-length cDNA clone Cof Homo sapiens (human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 2157)

1 (bases 1, Cruber, C., Jessee, J. and Polsyes, D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genoscope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Faraday Avenue
2 (bases 1 to 2157)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Full-length cDNA libraries 
Unpublished
                                                                                                    CACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGC
                                                                                                                                                             AGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCC
                                                                                                                                                                                                                    TACCTATAGCCAAGCTGCAGCGCAGCGAGCAGGGCTACACTTACACCGCCCCAGCCCACTCA
                                                                                                                                                                                                                                                                           GGGAGACGGACGTTGAGAGAAAGGAGGAGGAAGAGAGAAAATGGCGTCCACGGATTACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGAACCAAGAGGGCCTCTTAACTGTAACAATGT 2317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATGGTTGTTTAAGACTTTAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATTGTG
  CCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCAC
                             AACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAG
                                               AACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAG
                                                                                                                                              AGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCC
                                                                                                                                                                                                   TACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCA
                                                                                                                                                                                                                                                            GGGAGACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                90.3%; Scilarity 100.0%; P
Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                 /mol_type="mRNA"
/db_xref="taxon:9606"
/clome="CSDDIO10YII12"
/clome="CSDDIO10YII12"
/tissue_type="placenta Cot 25-normalized"
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                 Score 2157; D; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2157 bp r
CS0DI010YI12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and normalization
                                                                                                                                                                                                                                                                                                                                               BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mRNA linear
2 of Placenta Cot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2314
                                                                                                                                                                                                                                                                                                                                            u
--
                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                            Length 2157;
                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HTC 21-JUL-2004
25-normalized
                                                                                                                                                                                                                                                                                                                 ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                •
                                                         303
                                                                                                                                                                         183
                                                                                                                                                                                                                                123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2280
                             300
                                                                                      240
                                                                                                               243
                                                                                                                                            180
                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                      63
                                  밁
                                                                    Ś
                                                                                                                      S
                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                   Έ
                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
  . 8
                                                                                          밁
                                                                                                                                                        밁
                                                                                                                                                                               δ
                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         맑
                 1384
                                                                                                   1261
                                                                                                                                                          1201
                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                                           1081
                                                                                                                                                                                                                                                                                                                                1021
                                                                                                                               1264
                                                                                                                                                                                      1204
                                                                                                                                                                                                                                                                                                    1084
                                                                                                                                                                                                                                                                                                                                                            1024
                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                  964
                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  364 CACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTA 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
GAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCC
                                                            GGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCGGAA
                                                                                                                  TAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGG
                                                                                                                                                                                                                                 ATTAAATGACAGTGTGACTCTAGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGT
                                                                                                                                                                                                                                                                                            TCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGG
                                                                                                                                                                                                                                                                                                                                                      TGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCCATGGATGAAGGACCCAGATCTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                   TGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGACGCGGTGGAATGGGCAGCGC 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGACAGGACCACCCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTTCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACCGGCAGCAGAGTTCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCATCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCAC
                                                                                                 TAAGATGAACAAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGG
                                                                                                                                                                                                                  ATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGT
                                                                                                                                                                                                                                                                           TCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGG
                                                                                                                                                                                                                                                                                                                                TGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCAGGAGAAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGCAGCAGCCAGCCACCTGCACCTACAAGACCCGCAGGATGGAAACAAGCCCACTGA 483
                1443
                                                                       1383
                                                                                                                                                                                      1263
                                                                                                                                                                                                                                                                           1140
                                                                                                                                                                                                                                                                                                    1143
                                                                                                                                                                                                                                                                                                                                . 1080
                                                                                                                                                                                                                                                                                                                                                            . 1083
                                                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  903
                                            1380
                                                                                                   1320
                                                                                                                              1323
                                                                                                                                                           1260
                                                                                                                                                                                                                  1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             963
                                                                                                                                                                                                                                                                                                                                                                                                                                                 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         603
```

```
RESULT 3
CR604639
LOCUS
DEFINITION
                                                                                                             REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                        ACCESSION
VERSION
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                         SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             무
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멂
                                                                                                                                                                                                                            KEYWORDS
                                                                               JOURNAL
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1381
                                                                                                                                                                                                                                                                                                                                                                                      2101
                                                                                                                                                                                                                                                                                                                                                                                                                  2104
                                                                                                                                                                                                                                                                                                                                                                                                                                                  2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2044
                                                                                         Eukaryota; Metazoa; Chordata; C
Mammalia, Eutheria; Primates; C
1 (bases 1 to 2236)
Li,W.B., Gruber,C., Jessee,J. a:
Full-length cDNA libraries and
Ungublished
Faraday Avenue
2 (bases 1 to
Genoscope.
Direct Submissi
                                                                                                                                                                                                                         CR604639 2236 bp mRNA line full-length cDNA clone CSODJ013YN08 of T cells Cot 10-normalized of Homo sapiens (human). CR604639 GR604639.1 GI:50485446 HTC; CNSLT_cDNA.
                                                          Contact : Feng Liang Email : fliang@lifetech.com
http://fulllength.invitrogen.com/ InVitroGen Corr
                                                                                                                                                                                         HTC; CNSLT_cDNA.
Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCCGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCC
                                                                                                                                                                                                                                                                                                                                                                                                       TTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTTCACCATTTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGATCGTGGCAGAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAACCCCTCTGGAGGAGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAACCCCTCTGGAGGAGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGAGGCCGTGGAGGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCAT
                                                                                                                                                                                                                                                                                                                                                                                    TTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACAGATGGGAGGAAGAAGAGGAGGACGTGGAAAAAAATGGATAAAGGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGTGGCTTTGGTGGAAGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGATGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>AGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGA</u>
                             (bases 1 to 2236)
 Submission
                                                                                                           ,J. and Polayes,D. and normalization
                                                                                                                                                           Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                             .com URL :
Corporation
                                                                                                                                                                                                                                                                                      ear HTC 21-JUL-2004
(Jurkat cell line)
                                                                1600
                                                                                                                                                                                                                                                                                                                                                                                    2157
                                                                                                                                                                                                                                                                                                                                                                                                                    2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1803
                                                                                                                                                                                                                                                                                                                                                                                                                                                   2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1500
```

```
á
                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                     밁
                                                                                                                                문
                                                                                                                                                        ঠ
                                                                                                                                                                                      밁
                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                      片
                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
            δ
                                밁
                                                        5
                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 2236; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
              746
                                      661
                                                                                      601
                                                                                                                                     541
                                                                                                                                                                                       481
                                                                                                                                                                                                               506
                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                              446
                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                             386
                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                               326
                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                               266
                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26 GAGGAGGAAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCCAAGCTGCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr )

- Web : www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        μ
CAGCCTCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATAT
                                                     GGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAG
                                                                                                  TATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTAT
                                                                                                                                                   ACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAG
                                                                                                                                                                                                                                      GCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCATATGGGCAACAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCG
                                                                                      TATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCCTAT
                                                                                                                                       GTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCCTACCCTACCCAGC
                                                                                                                                                                                       ACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/mol_type="mRNA"
/db xref="taxon:9606"
/clone="CSODJO13YN08"
/tissue_type="T cells (Jurkat c. 10-normalized"
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1. .2236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    89.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 2146; Di
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ω
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 2236;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               line)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   prime
                                                               745
                                                                                                               685
                                                                                                                                       600
                                                                                                                                                                                                                565
                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                 505
                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                445
                                                                                                                                                                                                                                                                                                                                                                 385
                                                                                                                                                                                                                                                                                                                                                                                                                 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                         660
                                                                                                                                                               625
                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  265
               805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2
```

g g	B 8	B 8	<u> </u>	B 8	B 8	B 8	B 8	<u> </u>	B 8	g Qy	Qy db	g Qy	B 8	B 8	B &	_ይ	ß 8	В
1826 GACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGA 1885	1766 AGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGA 1825 	1706 CCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGA 1765	1646 GCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCA 1705 	1586 GTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTC 1645	1526 GGAGGCTTCCCTCCAAGAGGACCCCGGGGGTTCCCGAGGGAACCCCCTCTGGAGGAAGAC 1585	1466 GGAGGCCCAGGAGGTCCTGGGGGAGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGA 1525	1406 CGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCA 1465	1346 TITCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATG 1405	1286 GTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGAT 1345 	1226 CAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACA 1285	1166 GATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGG 1225 	1106 GATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTA 1165 	1046 AAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCA 1105	986 GGTGGGCGGGAGGAGGACGCCGGTGGAATGGGCAGCCTGGAGAGCGAGGTGGCTTCAAT 1045 	926 AGTGGCCCTGATAACCGGGGCAGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGA 985 	866 ATGGGTGTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATG 925	806 AGCCAACAGAGCAGCAGCTACGGGCAGAGTTCATTCCGACAGGACCACCCCAGTAGC 865	CAGCCTCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATAT 7
: -									,					•				
ORIGIN		FEATURES	COMMENT	AUTHORS TITLE JOURNAL	REMARK	REFERENCE AUTHORS TITLE	SOURCE	ACCESSION VERSION KEYWORDS	RESULT 4 CR625247 LOCUS DEFINITION	Db 22			, N, N	o	, ₊ ,	, н ;	- -	
/tissue type="Placenta" /tissue type="Placenta" /plasmid="pCMVSPORT_6"		was normalized. Library was constructed by Life Technologic division of Invitrogen. Location Qualifiers	- Web: www.genoscope.cns.fx) - Web : www.genoscope.cns.fx) - Web : www.genoscope.cns.fx) - Strand cDNA was primed with a NotI-oligo (dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and ROAV W sites of the DOWNSDORT & Vector Inheavy	Genoscope. Genoscope. Genoscope. Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : RP 101 91006 KWPV codex - FRANCE (R-mail : segref@genoscope cns fr	Contact: Feng Liang Email: fliang@lifetech.com URL: Contact: Feng Liang Email: fliang@lifetech.com URL: http://fulllength.invitrogen.com/ InVitroGen Corporation 1600 Faraday Avenue Chases 1 to 21501	1 to 2159) 1 to 2159) Gruber, C., Jessee, J. th cDNA libraries and		(human). CR625247.1 GI:50506054 HTC: CNSLT CDNA.	CR625247 2159 bp mRNA linear HTC 21-JUL-2004 full-length cDNA clone CSODEODSYF11 of Diacents of Homo gapieng	200 CIGLAMCANIGITALISTICATION 2331 [2240 AAIGGENACCCCTIGTGAGCATGCTCAGTATCATTGTGGAGAACCCAAGAGGGCCTCTTAA 2210 2151 AATGGGAACCCCTTGTGAGCATGCTCAGTATCATTGTGGAGAACCCAAGAGGGCCTCTTAA 2210 2250 GTGTAAGAACCCCTTGTGAGCATGCTCAGTATCATTGTGGAGAACCAAGAGGGCCTCTTAA 2210	GSTAGTGTGCGGAGITTTTTTTTTCTTCCTTCTTTTAAAAATGGTTGTTTAAGACTTTAAC GHIHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH	CCIIGICIGIACIIIAGIAIIIIIICACAIIIGGAAGAAACAIIAAAAAAAGIIAAAI	ASSAMATION I I I AMAI I CALARI I CALARI I I AMAI U I DOCUMENTI ALIMINI I CALARI I I AMAI U I DOCUMENTI ALIMINI I CALARI I I AMAI I I CALARI I I I AMAI I I I I I I I I I I I I I I				886 CGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGA 1945

8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

961 ATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGAGGACGCCGGTGGAATGGGCAG 1020	901 CGGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGG 960	841 ATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTC 900	781 CTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGGTTC 840	721 TGGTCAACAAAGCAGCTATGGGCAGCACCTCCCACTAGTTACCCACCC		601 ACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG 660	541 ACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGC 600	481 TGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGG 540	421 CTATGGGCAGCAGCAGCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCAC 480	361 CACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC 420	301 CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCAC 360	241 TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATA 300	181 GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA 240	121 TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAGGCTATGGAACCTATGGACA 180	61 CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGGCCAGCCCAC 120	AGAGGAGACGACGTTGAGAGAACGAGGAGGAGGAGAGAAAATGGCGTCCACGGATTA 60	Query Match 89.7%; Score 2144; DB 3; Length 2159; Best Local Similarity 99.9%; Pred. No. 0; Matches 2157; Conservative 0; Mismatches 0; Indels 3; Gaps 1;
2040	80 1	1921	1860	1801	1741	Qy 1681 AAAG Db 1680 AAAG	1620	1560	1500		1380	1321	1260	1200	1141 } 1140 }	Qy 1081 TGAT Db 1080 TGAT	Qy 1021 CGCT Db 1020 CGCT
		GGAACAGATIGGAAGAAGAAGAGAGAGACGTIGGAGACCTIGGAAAAATIGGATIAAAGGCGA 1980 				AAAAGCTGAAGGTTCCTCCCGCCACCCTTTCCGCCCCCGGTGGTGATCGTGGCAGAGG 1740 									ے سے م		

8 8 8

음 성 음

중 유

음 성

\$

5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Query Match Best Local S Matches 2126 Qy 56 Db 1 Qy 116 Db 61	FEATURES SOUICE	REFERENCE AUTHORS TITLE JOURNAL COMMENT	REFERENCE AUTHORS TITLE JOURNAL REMARK	RESULT 5 CR610808 LOCUS DEFINITION ACCESSION VERSION VERSION KEYWORDS SOURCE ORGANISM	DЬ
176 GGACAGCCCACTGATGTCAGCTATACCCAGCTCCAGCTCCAACCTATGGGCACACCCCAGCCCAACTGCAACCTATGTCAGCCCACTGCATGCA	### Acch B8.4%; Score 2113; DB 3; Length 2126; ### Scal Similarity 99.9%; Pred. No. 0; ### 2126; Conservative 0; Mismatches 0; Indels 3; Gaps 1; ### 56 GATTACAGTACCTATAGCCAAGCTGCAGGCAGCAGGCAGCAGAGCTACAGTGCTTACACCGCCCAG 115		2 (bases 1 to 2126) 2 (bases	Eukaryote; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Bukaryote; Metazoa; Chordata; Catarrhini; Hominidae; Homo. 1 (bases 1 to 2126) 1 (bases 1 to 2126) 5 Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation 1600 Faraday Avenue	CR610 full- (huma CR610 CR610 HTC;	
•						
'	8	р оу ор	Q B Q B Q	B Q B Q B	\$ \$ \$ \$ \$ \$	дb
GANACAGGANAGCCCANAGGCGANAGATTTCCANGGAGACCCACCCACTGCCAAG GANACAGGANAGCCCACAAGGCGANAGATTTCCANGGAGACCCACCCACTGCCAAG GCTGCCGTGGANATGGTTTGATGGGANAGATTTTCANGGGAGCANACTTANAGTCTCCCTT GCTGCCGTGGANTGGTTTGATGGGAAAGATTTTCCANGGGAGCANACTTANAGTCTCCCTT GCTCGCGTGGANTGGTTTGATGGAACAGTTTTCANGGGAGCANACTTANAGTCTCCCTT GCTCGGAAGAAGCCTCCAATGANCAGTTATGCGGGTGGTCTGCCACCCCCTGAGGGCAGA	1076 GATCTTGATCTAGGCCCACCTGTAGATCCAGATGAGACTCTGACAACAGTGCAATTAT 1135	TTTTCCGGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGAAGA GGGGGTTTGATCGTGGAGCATGAGCATGAGTTGGCCCCTGATAACCGGGGCAGGGAAGA GGGGGTTTGATCGTGGAGGCATGAGCAGAGGTTGGGCGGGGAGAGAGGACGCGGTTGGAATG [776 GGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCA	541 ACTGCACCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGAT 600 656 CAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGT 715	CCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGA	.361 CCAGCCTATGGGCAGCCAGCAGCACTGCACCTACAAGACCGCAGGATGGAAACAAG 420

```
RESULT 6
CR619493
LOCUS
DEFINITION
                                             REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                      REFERENCE
AUTHORS
TITLE
JOURNAL
REMARK
                                                                                                                                                                                                                          VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
       COMMENT
                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                ACCESSION
                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                   2038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1438
                                                                                                                                                                                                                                                                                                                                                                                           2156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1738
                                                                                                                                                                                                                                                                                                                                                                     2098
                                                                                                                                                                                                                                                                                                                                                                                                                                              2096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1976
Direct Submission
Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr)
- Web : www.genoscope.cns.fr)
1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prim
                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutel Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo 1 (bases 1 to 2103)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished CONTact: Feng Liang Email: fliang@lifetech.com URL: http://fulllength.invitrogen.com/ InVitroGen Corporation
                                                                                Faraday Avenue
2 (bases 1 to 2103)
                                                                                                                                                                                                                                     of Homo sapiens (human)
CR619493
CR619493.1 GI:50500300
HTC; CNSLT_CDNA.
                                                                                                                                                                                                                                                                          CR619493 2103 bp rfull-length cDNA clone CS0DI076Y021 of Homo sapiens (human).
                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCCGAGGGAACCCCTCTGGAGGGAGGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGGACCGAGGTGGCTTTTGGTGGAGGAGGAGGTGGCCCCTGGGGGGGCCCCCTGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGAGGGTGGCCTCATGGATCGTGGTGGTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                       TTTGTGAAGAAACATTAAAACAAGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                    TTATAATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCATTGACTACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTGATGGAACAGATGGGAGGAAGAAGAGGACGTGGAAGGACCTGGAAAAATGGATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTGATGGAACAGATGGGAAGAAGAAGAAGGAGGACGTGGAGGACCTGGAAAAAATGGATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGGCCCCCTTGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                   TTTGTGAAGAAACATTAAAACAAGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                    TTATAATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCA
                                                                                                                                                                                                                        sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                     2126
                                                                                                                                                                                                                                                                                                                                                                                           2184
                                                                                                                                                                                                                                                                                        mRNA linear
l of Placenta Cot
                                                                                                                                                                                                 Euteleostomi;
                                                                                                                                                                                                                                                                                        HTC 21-JUL-2004
25-normalized
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1855
                                                                                                                                                                                                                                                                                                                                                                                                                                              2155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1497
                                                                                                                                                                                                                                                                                                                                                                                                                      2097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1615
                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                              S
                                                                                                                                                             밁
                                                                                                                                                                                   8
                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                닭
                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ş
         밁
                         δ
                                                         밁
                                                                            S
                                                                                                            吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
         781
                               836
                                                                                                                                                                                                                                                                                                                                                                                            416
                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                              356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
```

```
end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
Location/Qualifiers
```

0

Query Match Best Local Similarity Matches 2103; Conserv 721 776 661 716 601 541 596 481 536 421 476 361 296 236 176 GGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACC 116 CCCACTCAAGGATATGCACAGACCCACCCAGGCATATGGGCAACAAAGCTATGGAACCTAT 56 GATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAG 1 GATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAG GCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCCAACTGCCCCCAG GGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCTACGGGCAGCAG AGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCGCCCCACTAGTTACCCCACCCCAAACT CAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGT ACTGCACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGAT ACTGCACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGAT TATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCCATGCAGCCAGTC CCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGA CCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGA CCAGCCTATGGGCAGCAGCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAG CCAGCCTATGGGCAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAG GTCACCACCACGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTAT GTCACCACCACCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTAT GCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACA GCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACA GGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACC AGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGA GGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAG Conservative /mol_type="mRNA"
/db xref="taxon:9606"
/clone="cSDDIO767021"
/tlsaue_type="placenta Cot
/plasmid="pCMVSPORT_6" 1. .2103 organism="Homo sapiens" TTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGT 88.0%; .0%; 0 Score 2103; D; Pred. No. 0; 0; Mismatches BB 25-normalized" ű, <u>..</u> Length Indels 2103; 0 Gaps 475 175 660 600 655 540 595 480 535 420 415 300 240 295 180 235 120 8 895 835 720 775 360

AGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGA

840

780

S

밁 ક 밁 ঠ 밁 δ

8 밁

```
1681
                                                                                                                                                                                                                                       1621
                                                                                                                                                                                                                                                                                            1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1141
               1861
                                                                                               1856
                                                                                                                                                                                                          1736
                                                                                                                                                                                                                                                                                                                      1616
                                                                                                                                                                                                                                                                                                                                                 1501
                                                                                                                                                                                                                                                                                                                                                                                                        1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         956
                                                                                                                                                                                                                                                    GCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                       GGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTAT
                                                                                     ATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCCTGGACCT
                                                                                                                          GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGC
                                                                                                                                          GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACACAGAGGTGGCTTCCGTGGTGGCCCGGGGC
                                                                                                                                                                              AGAGGTGGCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTCCC
                                                                                                                                                                                                                                                                                                         CCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG
                                                                                                                                                                                                                                                                                                                                                                TCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCCGAGCTGGAAGACTGGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCATGCCACCACCACCTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGGTTGTTAAGATGAACAAGAGAACTGGGCCAACCCCATGATCCACATCTACCTGGACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGAGGAGGAGGACGCCGTGGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGATGGAACAGATGGGAGGAAGAAGAAGGAGGACGTGGAGGACCTGGAAAAATGGATAAA
                                                                                                                                                                                                           AGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCC
                                                                                                                                                                                                                                                                                           CCCAATCCGGGTTGTGGAAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG
                                                                                                                                                                                                                                                                                                                                                 TCCCGAGGGAACCCCTCTGGAGGAGGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                        GGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATG
               TTGATGGAACAGATGGGAAGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCA
                                        1975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1195
            1920
                                                                                                                          1800
                                                                                                                                                    1855
                                                                                                                                                                                1740
                                                                                                                                                                                                                                     1680
                                                                                                                                                                                                                                                                 1735
                                                                                                                                                                                                                                                                                                                      1675
                                                                                                                                                                                                                                                                                                                                                 1560
                                                                                                                                                                                                                                                                                                                                                                             1615
                                                                                                                                                                                                                                                                                                                                                                                                        1500
                                                                                                                                                                                                                                                                                                                                                                                                                                  1555
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1135
                                                                   1860
                                                                                               1915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 7
CR608666
LOCUS
DEFINITION
                                 S
                                                                   밁
                                                                                      S
                                                                                                                   밁
.. 분
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                              Query Match
Best Local Sim
Matches 2083;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2096
               121
                                                                                             153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CR608666
full-length cDNA clone Clone Sapiens (human).
CR608666
CR608666.1 GI:50489473
HTC; CNSLT_CDNA.
                                                                   61
                                                                                                                                                   93
                                                                                                                                                                             h 87.2%; Sc
Similarity 100.0%; F
83; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genoscope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact : Feng Liang Email : http://fulllength.invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
               CCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 2083)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2158
                                                                                                                                                                                                                                                                                                                                1. .2083
```

Ś

밁

밁 5 밁 ર્

٤,

음 성

닭 S ક

밁 Ś 밁 ક 밁 S 멍 Ş 밁 ঠ 밁 ঠ 밁 ঠ 밁

당

```
Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (B-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 2083)

Li,W.B., Gruber,C., Jessee,J. and Polayes,D.

Pull-length cDNA libraries and normalization

Unpublished
                   CCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT
                                                                       GCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGA
                                                                                       GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGA
                                                                                                                                               TTATAATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="texon:9606"
/clone="CSODG004YL23"
/tissue_type="B cells (Ramos cuplasmid="pCMVSPORT_6"
                                                                                                                                                                                                                          t; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2083 bp 1
CS0DG004YL23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           fliang@lifetech.com/ InVitroGen
                                                                                                                                                                                                                                                                BG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mRNA
3 of B
                                                                                                                                                                                                                                                                ω
--
                                                                                                                                                                                                                                                                                                                                             cell
                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear HTC 21-JUL-2004 cells (Ramos cell line) of
                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .com URL :
Corporation
                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2040
180
                                   272
                                                                       120
                                                                                                           212
                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1980
                                                                                                                                                                                                                            0
```

	1353 GGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG 1412
REFERENCE 1 (both AUTHORS Li, W.) TITLE Full-	1293 ATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAG 1352
_	1233 TGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCT 1292
ACCESSION CR594	1173 TGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAAGAACTGGGCAACCCA 1232
RESULT 8 CR594868 COCUS CR594	1113 ACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATC 1172
Db 2041 CTG	1053 GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG 1112
1981 2133	993 GGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTG 1052
1921	933 CTGATAACCGGGGCAGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGC 992
1861	873 TTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAAACCGGAGCATGAGTGGCC 932
	813 AGAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCCACCC
1741	753 CCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAAC 812
1681	693 CGAGCAGCTATGGACAGĆAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTC 752
1621	633 CTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAAC 692
1561	573 GGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCAGCTATTCCT 632
Db 1501 ACC	513 GTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTG 572
1441	453 CAAGACCGCAGGATGGAÀACAAGCCCACTGAGACTCAATCTAGCACAGGGG 512
1381	393 CATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAGCAGCAGCAGCCACTGCACCTA 452
Oy 1413 GIG	333 CTTATGATACCACCACTGCTACAGTCACCACCCAGGCCTCCTATGCAGCTCAGTCTG 392
1261	273 ATACTACTCCAACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTG 332

S 밁 ঠ 밁 8 밁 S 밁 S 밁 Ś 밁 Ş 밁 ş 밁 र् 밁 S 밁 र् 밁 S 밁 S

밁

```
GTACTTTAGTATTTTTCACCATTTGTGAAGAAACATTAAAA 2175
                                                                                        TTTAAATTTATAATTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGT
                                                                                                                                                             GGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACT
                                                                                                                                                                                                                                                                                                                                                                           CTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAGAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGAGCTGGAGACTGGCAGTGTCCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3GAGGTCCTGGGGAGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TIGCCACCCGTGAGGGCAGAGGCATGCCACCACTCCGTGGAGGTCCAGGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TIGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACCTCCGTGGAGGTCCAGGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ITTAAATTTATAATTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGT
                                                                                                                                                                                                             GACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACT
                                                                                                                                                                                                                                                                                    CTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTG
                                                                                                                                                                                                                                                                                                       CTGGGGGGCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAGGACGTG
                                                                                                                                                                                                                                                                                                                                                       GCTTCCGTGGTGGCCGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCCTGAAGGCTTCCTCCCGCCACCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HAGGT CCTGGGGGACCCATGGGT CGCATGGGAGGCCCGTGGAGGAGATAGAGGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGA
                                                                                                                                           2083
                                                                                                        2132
                                                                                                                                           1980
                                                                                                                                                                            2072
                                                                                                                                                                                                                                                                                                                     1952
                                                                                                                                                                                                                                                                                                                                                       1800
                                                                                                                                                                                                                                                                                                                                                                                         1892
                                                                                                                                                                                                                                                                                                                                                                                                                            1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1320
                                                                                                                                                                                                             1920
                                                                                                                                                                                                                                                2012
                                                                                                                                                                                                                                                                                    1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1620
```

4868 2093 bp mRNA linear HTC 21-JUL-2004 -length cDNA clone CS0DI064YE15 of Placenta Cot 25-normalized omo sapiens (human).

94868.1 GI:50475675
; CNSLT cDNA.
o sapiens (human)
o sapiens (hordata; Craniata; Vertebrata; Euteleostomi;
paryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
malia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
(Dases 1 to 2093)
W.B., Gruber,C., Jessee,J. and Polayes,D.
1-length cDNA libraries and normalization
ublished
tact: Feng Liang Email: fliang@lifetech.com URL:

밁 S 밁 S 밁 δ 밁 5 밁 8

δ

```
REFERENCE
AUTHORS
TITLE
JOURNAL
              ঠ
                                      밁
                                                         र्
                                                                                     밁
                                                                                                       5
                                                                                                                                   밁
                                                                                                                                                     ঠ
                                                                                                                                                                                    밁
                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                       र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bource
               716
                                      601
                                                             656
                                                                                     541
                                                                                                            596
                                                                                                                                      481
                                                                                                                                                             536
                                                                                                                                                                                     421
                                                                                                                                                                                                            476
                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                           416
                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                            356
                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                           296
                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                            176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2093;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Direct Submission
Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage :
Bp 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr

Web : www.genoscope.cns.fr)
lst strand cDNA was primed with a NotI-oligo (dT) primer. Five prime end enriched, double-strand cDNA was primed with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         http://fulllength.invitrogen.com/ InVitroGen Corporation Faraday Avenue 2 (Dases 1 to 2093)
Genoscope.
                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGA
                                                                                                                                                                                                                                                 CCAGCCTATGGGCAGCAGCAGCACCACTGCACCTACAAGACCGCAGGATGGAAACAAG
                                                                                                                                                                                                                                                                                                                                                                                  GCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGCGGCTACAGTGCTTACACCGCCCAG
                                                                                                  ACTGCACCTCCATCCTACCCTCCTACCCAGCTATTCCTCTACACAGCCGACTAGTTATGAT
                                                                                                                                                 TATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCCATGCAGCCAGTC
                                                                                                                                                                                                                                                                                  GTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTAT
                                                                                                                                                                                                                                                                                                   GTCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTAT
                                                                                                                                                                                                                                                                                                                                                  GCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCCAACAAAGCTATGGAACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGCTACAGTGCTTACACCGCCCAG
                                                      CAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGT
                                                                                                                                      TATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTC
                                                                                                                                                                                     CCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGA
                                                                                                                                                                                                                                    CCAGCCTATGGGCAGCCAGCCAGCCACCTGCACCTACAAGACCGCAGGATGGAAACAAG
                                                                                                                                                                                                                                                                                                                                   GCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/clone="CSODI064YEI5"
/tissue_type="Placenta Cot
/plasmid="pCWVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              87.0%;
99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 2080; DI
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-normalized"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          u
س
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>..</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  w
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1600
                                                                                                                                                                                                                                                                                                          415
                                                                                                                                                                                                                                                                                                                                                                                                           295
              775
                                      660
                                                            715
                                                                                      600
                                                                                                            655
                                                                                                                                    540
                                                                                                                                                           595
                                                                                                                                                                                    480
                                                                                                                                                                                                            535
                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                           475
                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                           355
                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60
                                                음 성 음
                 Ś
                                                                                                                ð
                                                                                                                                                               S
                                                                                                                                                                                              밁
                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                               ર્ક
                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                               ঠ
밁
                                                                                                                                             문
                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
 1738
                                                                                                 1618
                                                                                                                        1676
                                                                                                                                                                                                                                              1438
                                                                                                                                                                                                                                                                                              1378
                                                                                                                                                1558
                                                                                                                                                                       1616
                                                                                                                                                                                               1498
                                                                                                                                                                                                                      1556
                                                                                                                                                                                                                                                                     1496
                                                                                                                                                                                                                                                                                                                                              1318
                                                                                                                                                                                                                                                                                                                                                                      1376
                                                                                                                                                                                                                                                                                                                                                                                                                      1316
                                                                                                                                                                                                                                                                                                                                                                                                                                               1198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
              GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGC
                                                              AGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGAGGTGGCCTCATGGATCGTGGTGGTCCC
                                                                                                             CCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG
                                                                                                                                                                                              GGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGT
                                                                                                                                                                                                                                                                                                          GGCATGCCACCACCACCCCTCGGGGGGGTCCCAGGAGGCCCAGGAGGTCCTGGGGGGACCCATG
                                                                                                                                                                                                                                                                                                                                                           GCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                           GCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGGTTGTTAAGATGAACAAGAGAACTGGGCCAACCCCATGATCCACATCTACCTGGACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              G---
  GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGC
                                                                                                 GCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGC
                                                                                                                                                CCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG
                                                                                                                                                                                                                                                                                                                                                                                               GCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                              GTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCCGGTGGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTTTTATGGGCAGGAGTCTGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGACGCGGTGGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGA
                                                                                                                                                                                                                      1615
                                                                                                                                                                                                                                                                                                                     1495
                                                                                                                                                                                                                                                                                                                                                                    1435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1075
 1797
                        1855
                                                1737
                                                                        1795
                                                                                               1677
                                                                                                                        1735
                                                                                                                                                                                                                                                                     1555
                                                                                                                                                                                                                                                                                                                                            1377
                                                                                                                                                1617
                                                                                                                                                                       1675
                                                                                                                                                                                               1557
                                                                                                                                                                                                                                                                                               1437
                                                                                                                                                                                                                                                                                                                                                                                               1317
                                                                                                                                                                                                                                                                                                                                                                                                                      1375
                                                                                                                                                                                                                                                                                                                                                                                                                                             1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
```

Query Match Best Local Similarity 100.0%; Pred. No. 0; Best Local Similarity 100.0%; Pred. No. 0; Matches 2073; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Matches 2073; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Qy 93 GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG 152	was normalized. Library was constructed by Life Technologies, a division of Invitrogen. FEATURES Location/Qualifiers 12073 /organism="Homo sapiens" /mol_type="mRNA" /db xref="texon:9606" /clone="CSODIO11Y005" /tissue type="placenta Cot 25-normalized" /plasmid="pCMVSPORT_6"	FAIRADAY AVENUE FAIRADAY AVENU	VERSION CR593724.1 GI:50474531 KEYWORDS HTC; CNSLT_CDNA. SOURCE Homo sapiens (buman) ORGANISM Homo sapiens (buman) ORGANISM Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. REFERENCE 1 (bases 1 to 2073) AUTHORS Li,W.B., Gruber,C., Jessee,J. and Polayes,D. TITLE Full-length cDNA libraries and normalization JOURNAL Unpublished Unpublished Contact: Feng Liang Email: fliang@lifetech.com URL: Contact: Feng Liang Email: fliang@lifetech.com URL: http://fillpooth.invitrogen.com/ Invitrogen Corporation 1600	9 4 CR593724 ION full-length of Homo sapi ON CR593724	CY 2036 CLATICACIAC CAGAITTATTTTTAAACCAGAAAATGTTTTAAAATTTATAATTCCATAT 2037 Db 1978 GCATTGACTACCAGATTTATTTTTTAAACCAGAAAATGTTTTTAAAATTTAATAATTTCCATAT 2037 CY 2096 TTATAATGTTGGCCACAACATTATGATTATTCCTTGTACTTTAGTATTTTTC 2151 Db 2038 TTATAATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTC 2093	1976 GGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCT	Qy 1856 ATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGAGGCCT 1915
B & B & B &	D	8	B & B & B &	9	D 04 D 04	Q	D 04
1113 ACTCTGACAACAGTGCAATTTATGTACAAGGATTAATGACAGTGTGACTCTAGATGATCATTATGTACAAGGATTAATGACAATGACAGTGTGACTCTAGATGATC 1172	CTGATGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG	AGAGCAGCAGCAGCAGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTG	633 CTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAAC 692	513 GTTACAACCAGCCCAGCCTAGGATAATGGACAGAGTAACTACAGTTATCCCCAGGTACCTG 572	301 CATATGCATCHACCITCLINICAL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CANADACCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGCCAGC		213 CCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT 272

```
RESULT 10
CR602561
                                                   ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                               LOCUS
DEFINITION
                                    ORGANISM
                                                                                                                                                                                                                                                                                           1981
                                                                                                                                                                                                                                                                                                                        2073
                                                                                                                                                                                                                                                                                                                                                           1921
                                                                                                                                                                                                                                                                                                                                                                                                                        1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1621
                                                                                                                                                                                                                              2041
                                                                                                                                                                                                                                                          2133
                                                                                                                                                                                                                                                                                                                                                                                        2013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1293
 Homo sapiens
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                               CR602561 2070 bp rfull-length cDNA clone CS0DI068YN23 of Homo sapiens (human).
CR602561 GI:50483368
HTC; CNSLT_CDNA.
                                              Homo sapiens (human)
                                                                                                                                                                                                                                               CTGTACTTTAGTATTTTTCACCATTTGTGAAGA 2165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAAGAGGAGGACGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                         GTTTTAAATTTATAATTCCATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGT
                                                                                                                                                                                                                                                                                                                                                                        GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCGAGAGATCGGCCCTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCTCATGGATCGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTTGGTGGCATGCGGGGAGGAAGAAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAACAGAGTGCAACCAGTGTAAGGCCCCAAAGGCCTGAAGGCTTCCTCCCGCCACCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCGAGCTGGAGACTGCCAGAGTGTCCCGATCCGGGTTGTGGAAACCAGAACTTCGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAGAACGTCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGGAGGTCCTGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTCTGCCACCCCGTGAGGGCAGAGGCATCCACCACCACTCCGTGGAGGTCCAGGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG
                                                                                                                                                                                                                                                                                                                                                       GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGGAGGTCCTGGGGACCCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGAAAGATTTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAG
   Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                mRNA
                                                                                                                               얁
                                                                                                                               Placenta
                                                                                                                                              linear
                                                                                                                               Ç
                                                                                                                              HTC 21-JUL-2004
25-normalized
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1892
                                                                                                                                                                                                                                                                                                                                                                                     2072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1352
                                                                                                                                                                                                                                                                                          2040
                                                                                                                                                                                                                                                                                                                        2132
                                                                                                                                                                                                                                                                                                                                                       1980
                                                                                                                                                                                                                                                                                                                                                                                                                      1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                    2012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
JOURNAL
REMARK
S
                               밁
                                                        ঠ
                                                                                            밁
                                                                                                                S
                                                                                                                                                          밁
                                                                                                                                                                                        S
                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                      묽
                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                   맑
                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Sin
Matches 2070;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
   656
                                 541
                                                                                                                                                                                           476
                                                                                                                                                                                                                                                       416
                                                                                                                                                                                                                                                                                                                                                      241
                                                                                              481
                                                                                                                                                            421
                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                      356
                                                                                                                                                                                                                                                                                                                                                                                     296
                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (B-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Li, W.B., Gruber, C., Jessee, J. and Polayes, D. Full-length cDNA libraries and normalization Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genoscope.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
 CAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGT
                                                   ACTGCACCTCCATCCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGAT
                                                                                                             TATGGACAGAGTAACTACAGTTATCCCCCAGGTACCTGGGAGCTACCCCCATGCAGCCAGTC
                                                                                                                                                                           CCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGA
                                                                                                                                                                                                                       CCAGCCTATGGGCAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAG
                                                                                                                                                                                                                                          CCAGCCTATGGGCAGCAGCCAGCAGCCACCTGCACCTACAAGACCGCAGGATGGAAACAAG
                                                                                                                                                                                                                                                                                        GTCACCACCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTAT
                                                                                                                                                                                                                                                                                                         GTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTAT
                                                                                                                                                                                                                                                                                                                                                      GCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACA
                                                                                                                                                                                                                                                                                                                                                                        GCATACAGCCAGCCTGTCCAGGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACA
                                                                                                                                                                                                                                                                                                                                                                                                                     GCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (bases 1 to 2070)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 2070)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODIO68YN23"
/tissue_type="Placenta Cot 2
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. .2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           86.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Score 2057; Di
; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-normalized'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ω
•-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ω
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                               655
                                                                                                                          595
                                                                                                                                                          480
 715
                               600
                                                                                                                                                                                         535
                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                         475
                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                      415
                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ۳
```

ફ

밁

ঠ 밁 ঠ 밁 ঠ 밁 δ

밁 δ 밁 र् 밁 S

밁

S

밁 S 음 성

ঠ

밁 S र्

문

र्

밁

밁

CCACCCCACAGA	736 AGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGG	1676 GCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCTTTCCGCCCCCGGGTGGTGATCGT	H-H	1556 TCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAC	\sim	1436 GGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCCAGGAGGTCCTGGGGGACCCCAGGAGGTCCTGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGACCCCAGGAGGTCCTGGGGGGGACGCCAGGAGGTCCTGGGGGGGACCCCAGGAGGTCCTGGGGGGGACGCCAGGAGGTCCTGGGGGGGACCCCAGGAGGTCCTGGGGGGGAGGTCCAGGAGGTCCTGGGGGGGACGCCAGGAGGTCCTGGGGGGGACGCCAGGAGGTCCTGGGGGGGACGCCAGGAGGTCCTGGGGGGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGGGG	1376 GCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGC		1256 GAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCACCC	カー ち	1136 GTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAG	1076 GATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTAT	1016 GGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGAC	956 GGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGAGGACGCGGTGGAATG 	896 TTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGA	836 AGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTTTTATGGGCAGGAGTCTGGAGGA	8—8	716 AGCTATGGTCAACAAAGĆAGCTATGGGCAGCAGCCTCCCACTAGTTACCCACCCCAA	601 CAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAG
--------------	--	---	-----	--	--------	---	--	--	--	-------------	--	---	---	---	--	---	-----	---	---

S

밁 ঠ В 5 밁

```
밁
                                                                                  5
                                                                                                                     밁
                                                                                                                                                Ś
                                                                                                                                                                                  밁
                                                                                                                                                                                                           á
                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                       닭
                                                                                                                                                                                                                                                                                                                                  Ś
밁
                      S
                                                                                                                                                                                                                                                                                                                                                                    밁
                                                          1978
                                                                                         2036
                                                                                                                       1918
                                                                                                                                                     1976
                                                                                                                                                                                  1858
                                                                                                                                                                                                                1916
                                                                                                                                                                                                                                              1798
                                                                                                                                                                                                                                                                                                                                                                    1678
                                                                            GCATTGACTACCAGATTTATTTTTTAAACCAGAAAATGTTTTAAAATTTATAATTCCATAT
TTATAATGTTGGCCACAACATTATGATTATTCC
              TTATAATGTTGGCCACAACATTATGATTATTCC 2128
                                                            GCATTGACTACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATAT
                                                                                                                       GGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGAGCT
                                                                                                                                       GGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGAGACCCCGCAGAGCT
                                                                                                                                                                                   TTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAAATGGATAAA
                                                                                                                                                                                                     TTGATGGAACAGATGGGAAGAAGAAGAAGGAGGACGTGGAGGACCTGGAAAAAATGGATAAA
                                                                                                                                                                                                                                              ATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCT
                                                                                                                                                                                                                                                                   ATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCT
                                                                                                                                                                                                                                                                                                       GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGC
                                                                                                                                                                                                                                                                                                                         GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGTGGCCGGGGC
                                                                                                                                                                                                                                                                                                                                                                     AGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCC
 2070
                                                                                                                                                                                     1917
                                                                                                                                                                                                                  1975
                                                                                                                                                                                                                                                                                                                                                                       1737
                                                                                          2095
                                                                                                                        1977
                                                                                                                                                       2035
                                                                                                                                                                                                                                                 1857
                                                                                                                                                                                                                                                                            1915
                                                                                                                                                                                                                                                                                                           1797
                                                                                                                                                                                                                                                                                                                                         1855
```

, B

S 밁 5 밁 5 밁 δ 밁

र्

멂

δ

ঠ

밁

ACCESSION VERSION KEYWORDS SOURCE ORGANISM TITLE
JOURNAL
MEDLINE
PUBMED
REFERENCE RESULT 11 AK034755 LOCUS REFERENCE DEFINITION AK034755

AK034755

Mus musculus 12 days embryo embryonic body between diaphragm region and neck cDNA, RIKEN full-length enriched library, clone:9430031M11 product:Ewing sarcoma homolog, full insert sequence.

AK034755 HTC; CAP trapper.
Mus musculus (house mouse) Eukaryota; Metazoa; Mammalia; Eutheria; Mus musculus AK034755.1 GI:26084174 HTC; CAP trapper.

Chordata; Rodentia;

Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus

AUTHORS Carninci, P. and Hayashizaki, Y. High-efficiency full-length cDNA Meth. Enzymol. 303, 19-44 (1999) 99279253

Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genome Res. 10 (10), 1617-1630 (2000) hs to new genes

TITLE

JOURNAL MEDLINE PUBMED REFERENCE AUTHORS 11042159

5 밁 δ 밁 8 밁 ş 밁

밁

Shibata, K., Itoh, M., Alzawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kiteunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishi, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Pujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y. RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)

TITLE

JOURNAL MEDLINE PUBMED REFERENCE AUTHORS The RIKEN Genome Ex FANTOM Consortium. Functional annotati Nature 409, 685-690 5 annotation of a full-length mouse cDNA collection , 685-690 (2001) Exploration Research Group Phase II Team and the

REFERENCE

TITLE JOURNAL

밁 á 밁 á 밁 ર્ક

δ

```
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                         ঠ
                                                                                                                                                                                      밁
 S
                                      밁
                                                                        ફ
                                                                                                             밁
                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 2172; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                      polyA_site
                                                                                                                                                                                                                                                                                                                                                                                                          polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gource
     184
                                        124
                                                                          125
                                                                                                               64
                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Group Phase I & II Team.

Analysis of the mouse transcriptome based of 60,770 full-lenth cDNAs

Nature 420, 563-573 (2002)

6 (bases 1 to 2373)

6 (bases 1 to 2373)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission

Submitted (16-UTL-2001) Yoshihide Hayashizaki, The Institute of Submitted (16-UTL-2001) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-resegsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9212,

Pax:81-45-503-9216)

Pax:81-45-503-9216)

CDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in Riken Chivision of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Adachi, J., Aizawa, K., Akimura, T., Arakawa, T., Bono, H., Carninci, P. Fukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hashizume, W., Hayashida, K., Hayatsu, N., Hiramoto, K., Hiraoka, T., Hirozane, T., Hori, F., Imotani, K., Ishii, Y., Itch, M., Kagawa, I., Kasukawa, T., Katch, H., Kawai, J., Kojima, Y., Kondo, S., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Myazaki, A., Murata, M., Nokamura, M., Nishi, K., Nomura, T., Muyazaki, R., Ohno, M., Ohaato, N., Okazaki, Y., Saito, R., Saitoh, H., Sakai, C., Sakai, K., Sakazume, N., Sano, H., Sasaki, D., Shibata, K., Shinagawa, A., Shiraki, T., Sogabe, Y., Tagami, M., Tagawa, A., Takahashi, F., Takaku-Akahira, S., Takeda, Y., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A., Muramatsu, M., and Hayashizaki, Y.
                                                                                                                                                                                      4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        prepare mouse tissues.
Please visit our web site for further details.
URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/.
Location/Qualifiers
                                                                                                                                                                                                                          ហ
                                                                                                                                                                                                         GGAGACGGACGTTGAGAGAACGAGGAGGAAGGAAAAATGGCGTCCACGGATTACAGT
                                                           GGATATGCACAGACCACCCAGG-CATATGGGCAACAAAGCTATGGAACCTATGGACAGCC
                                                                                                             ACCTATAGCCAAGCTGCAGCGCAGCAGGGCCTACAGTGCTTACACCGCCCAGCCCAAC
 CACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGC
                                      GGATATGCACAGACCACCCAGGNCATATGGGCAACAAGCTATGGAACCTATGGACAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FANTOM Consortium and the RIKEN Genome Exploration Research
                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Mus musculus"
/mol type="mRNA"
/strain="C57BL/6J"
/db_xref="FANTOM_DB:9430031M11"
/db_xref="taxon:T0090"
/clone="9430031M11"
                                                                                                                                                                                                                                                                                                                                                                                                          putative"
2358. .236
                                                                                                                                                                                                                                                                                                                                                                        /note="putative"
2373
                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="Ewing sarcoma homolog (MGD|MGI:99960, GB|NM_007968,
evidence: BLASTN, 99%, match=2172)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone_lib="RIKEN full-length enriched mouse cDNA library"
/dev_stage="12 days embryo"
43. -2011
                                                                                                                                                                                                                                                                                                                                                     /note="putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /tissue_type="embryonic body between diaphragm region and
                                                                                                                                                                                                                                                                              82.8%;
                                                                                                                                                                                                                                                                                                                                                                                                              . 2363
                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                              Score 1979.8;
Pred. No. 0;
                                                                                                                                                                                                                                                              152;
                                                                                                                                                                                                                                                                                               DB 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        on functional annotation
                                                                                                                                                                                                                                                            Indels 41;
                                                                                                                                                                                                                                                                                                 Length
                                      183
                                                                          183
                                                                                                               123
                                                                                                                                                   124
                                                                                                                                                                                      63
 ্ ঠ
                                                       밁
                                                                                          S
                                                                                                                            밁
                                                                                                                                                           δ
                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            吊
1081
                                                                                                                                                                                                                                           1084
                                                                                                                                                                                                                                                                                                                  1024
                                                                                                                                                                                                                                                                                                                                                                                         964
                                                                                                                                                                                                                                                                                                                                                                                                                             904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          184
                                                                              TAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGG
                                                                                                                                                 ATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGT
                                                                                                                                                                                                                            TCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGG
                                                                                                                                                                                                                                                                                TGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGA
                                                                                                                                                                                                                                                                                                   TGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGA 1083
                                                                                                                                                                                                                                                                                                                                                                                   TGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGACGCGCGGTGGAATGGGCAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                             ACCAGGAGAACCGGAGCTTGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCATCTTATCCTCCTACCAGCTACTCCTCTTCACAGCCGACTAGTTACGATCAGAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCCATGCAGCCAGTCACTGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGGCAGCAGCAGCCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCCACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTA 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGCCTGTGCAGGGATATGGCACTGGGACTTATGACAGCACCACTGCTACAGTCACCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCAGGCATACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTAGGCCTTCCTATAGATCCCGATGAAGACTCTGACAACAGTGCAATTTATGTGCAAGG
                                                                                                                                                                                                                                                                                                                                                      TGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGACGCGGTGGACTGG---GCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCAACAAAGCAGCTATGGGCAGCAGCCTCCTACTAGTTACCCCCCCTCAGACTGGATCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTACTCTCAGCAGAACACCTATGGGCAGCCGAGCAGCTATGGACAACAGAGTAGCTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGTAACTACAGCTATCCCCAGGTACCTGGGAGCTACCCAATGCAGCCAGTCACCGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGCCAGCAGCCAACAGCCACCGCACCTACCAGACCACAGGATGGTAACAAGCCTGCTGA
                                                                                             1263
                                                                                                                                                                                                         1140
                                                                                                                                                                                                                                                                                                                                                                                         1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              363
                      1323
                                                           1260
                                                                                                                                                                  1203
                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               483
                                                                                                                                                                                                                                                                                                                                                                                                                             963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              363
```

5 & 5 &

```
1864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1384
                                                                                                                                                    2213
                                                                                                                                                                                                                                                                                                        2094
                                                                                                                                                                                                                                                                                                                                                                                                                       2044
 2332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAA
                                                                                                                                                                                                                                                 TACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGTTGTGGAAACCAGAACTTCGCCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGAGGCCGTGGAGGAGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ANAGCCTANAGGGGACGCCACAGTGTCCTATGNAGATCCACCAACTGCAAAGGCTGCCGT
CCTTGTGAGCATGCTCAGTATCATTGTGGAGAACCAAGAGGGCCTCTTAACTGTAACAAT
                                                                                                                                                                                                                                                                                                                            TTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                    GACCAGATTTATTTTTAAACCAGAMAATGTTTTAAATTTATAATTCCATATTTATAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCGTCAGGAACGCAGAGACCGGCCCTACTAGA----GACCTGCAGAGCTGCATTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGAGCTGCATTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGTGGCTTTGGTGGAGGAAGAAGACGAGGTGGTCCTGGGGGGGCCTCCTGGACCTTTAATGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCCGAGGGCTTCCTCCCGCCACCCTTTCCACCTCCGGGTGGTGATCGTGGACGAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGCTGTGGAAACCAGAACTTCGCTTGGAGAACAGAATGCAACCAGTGTAAGGCCCCCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGAGGCCGTGGAGGAGACAGAGGGGCTTCCCTCCAAGAGGGCCCCGAGGCTCCAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAAGCCTCCAATGAACAGCATGCGGGAGGCATGCCACCTCGTGAGGGCAGGGGATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAATGGTTTGATGGGAAAGATTTTCAAGGAAGCAAACTTAAAGTGTCTCTTGCCCGAAA
                                   GTTCATGGTTGTGATGTTTTTTTT 2340
                                                                                                                                                        GATTTGTTCTTTTTTTTCCTTTTTAAGATGGTTGTTTTAAGACTTAACAATGGGAACC
                                                                                                                                                                                                                                                                                                          TTGGCGACAACATTATGATTATTCCTTGTCTGTACTTTAGTA-TTTTCACCATTTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACAGATGGGAGGAAGAAGAGGCGGACGTGGAGGACCTGGGAAAATGGATAAAGGCGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGA
                                                                                                                                                                            TTTTCTTCCTTCTTTTAAAAATGGTTGTTTAAGACTTTAACAATGGGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1680
                                                                                                                                                                                                                                                                                                                                              2163
                                                                                                                                                                                                                                                                                                                                                                                                                                                             2033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1440
                                                                                                                                                                                                                                                                                                          ,2152
                                                                                                                                                                                                                                                                                                                                                                                    2093
                                                                                                                                                                                                                                                                                                                                                                                                                       2103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1800
                                                                           2331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1980
```

밁 S 밁 S 밁 ક 밁 ð 밁 ঠ 밁 δ 밁 S 밁 S 밁 ঠ 밁 ક 망 8 밁 S 밁 ક 멍 S 밁 S 밁

음 &

```
JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 12
AK019460
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                      TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
L. Nature 420, 563-573 (2002)

12. 6 (bases 1 to 2107)

23. 7 (bases 1 to 2107)

24. Nature 420, 563-573 (2002)

25. Adachi, J., Aizawa, K., Akahira, S., Fukuda, S., Fukunishi, Y., Arakawa, T., Bono, H., Carninci, P., Fukuda, S., Fukunishi, Y., Furuno, M., Hanagski, T., Hara, A., Hayatsu, N., Hiramoto, K., Hiraoka, T., Hori, F., Imotani, K., Ishi, Y., Itoh, M., Izawa, M., Katuskawa, T., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kowda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Nishi, K., Koya, S., Kurihara, C., Matsuyama, T., Okido, T., Owa, C., Salto, H., Saito, R., Sakai, C., Sakai, K., Sano, H., Sasaki, D., Shibata, K., Shibata, Y., Shinagawa, A., Shiraki, T., Sogabe, Y., Shibata, K., Shibata, Y., Shinagawa, A., Takahashi, F., Tanaka, T., Yoshino, M., Muramatsu, M. and Hayashizaki, Y. Toya, T., Yamamura, T., Yasunishi, A., Yoshida, K., Yoshida, K., Toya, T., Yamamura, T., Yasunishi, A., Yoshida, K., Yoshida, K., Yoshida, K., Shipata and Chemical Research (RIKEN), Labbratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute, 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama Institute, 1-7-25 Suehiro-cho, Tsurumi-ku, Yokohama Institute, 1-7-25 Suehiro-cho, Tsurumi-ku, Yokohama Institute, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           carninci,P. and Hayashizaki,Y. High-efficiency full-length cDNA Meth. Enzymol. 303, 19-44 (1999) 99279253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A., and Hayashizaki, Y. RIKEN integrated sequence analysis (RISA) system—384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AK019460 2107 bp mRNA linear HTC 03-APR-2004 Mus musculus 18 days pregnant adult female placenta and extra embryonic tissue cDNA, RIKEN full-length enriched library, clone:3830417B11 product:Ewing sarcoma homolog, full insert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Group Phase I & II Team.
Analysis of the mouse transcriptome of 60,770 full-length cDNAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The RIKEN Genome Exploration Research Group FANTOM Consortium.
Functional annotation of a full-length mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genome Res.
20530913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AK019460.1 GI:12
HTC; CAP trapper.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nature 409,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11042159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20499374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The FANTOM Consortium and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11076861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10349636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GI:12859676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    685-690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                on of a (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RIKEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   based
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   မ္
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Exploration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   functional
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      collection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    II Team
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       genes
```

```
밁
                                                                                                                                                  S
                                                                                                                                                                                밁
               밁
                                     S
                                                                      밁
                                                                                        ঠ
                                                                                                                                                                                                       ई
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 1971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bource
                                                                                                                                                                                                                                     1971;
               181
                                         208
                                                                    121
                                                                                              148
                                                                                                                         61
                                                                                                                                                     88
                                                                                                                                                                                                           28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222,
Fax:81-45-503-9216)
Please visit our web site (http://genome.gsc.riken.j
details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                  GGAGGAAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCA
                               TCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCAC
                                                                                    ATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGC
                                                                                                                           GCAGGGCTACAGTGCTTACACCGCCCAGCCAACTCAAGGATATGCACAGACCACCCAGGC
                                                                                                                                            GCAGGGCTACAGTGCTTACACCGCCCAGCCCAGCTCAAGGATATGCACAGACCACCCAGGC
                                                                                                                                                                              GGAGGAAGGCGAGAAAATGGCGTCCACGGATTACAGTACCTATAGTCAAGCTGCAGCCCA
               TCAGACCACTGCCACCTACGGGCAGACTGCATATGCAACTTCTTACGGACAGCCTCCCAC
                                                                      ATATGGGCAACAAAGCTATGGAACCTATGGACAGCCTACTGATGTCAGCTATACTCAGGC
                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BamHI. Host: DH10B
                                                                                                                                                                                                                                                                                                  /clone Tib="RIKEN full-length enriched mouse con /dev_gtage="18 days pregnant adult"
17. 1984
/note="unnamed protein product; Ewing sarcoma homolog (MGD|MGI:99960, GB|NM_007968, evidence: BLASTN, 99%,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /tissue_type="placenta and extra embryonic tissue"
/clone_lib="RIKEN full-length enriched mouse cDNA library"
/dev_stage="18 days pregnant adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /db_xref="FANTOM_DB:3830417B11"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /mol_type="mRNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'sex="female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           clone="3830417B11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             organism="Mus musculus"
                                                                                                                                                                                                                                                77.8%;
93.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         web site (http://genome.gsc.riken.jp/) for
                                                                                                                                                                                                                                     <u>.</u>.
                                                                                                                                                                                                                                                Score 1860;
Pred. No. 0;
                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                               DB 3;
                                                                                                                                                                                                                                     135;
                                                                                                                                                                                                                                                             Length 2107;
                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                     10;
              240
                                         267
                                                                      180
                                                                                                                         120
                                                                                              207
                                                                                                                                                     147
                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
S
                           문
                                                8
                                                                                 닭
                                                                                                    5
                                                                                                                                      밁
                                                                                                                                                               S
                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                맑
                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
 1348
                                                                                                                                                                                           1078
                                                                                                                                                                                                                                                  1018
                                                                                                                                                                                                                                                                            1048
                                                                                                                                                                                                                       1108
                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                  988
                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                      928
                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                              868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    268
 TCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCG
                                                                                                                                                     TGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCA
                                                                                                                                                                                                           TGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGA 1167
                                                                                                                                                                                                                                                                GCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGA 1107
                                                                                                                                                                                                                                                                                                       TGGGCGGGGAGGAGGACGCGGTGGACTGG---
                                                                                                                                                                                                                                                                                                                       TGGGCGGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAA 1047
                                                                                                                                                                                                                                                                                                                                                                                                                 GGGTGTTTATGGGCAGGAGTCTGGAGGATTTTTCCGGACCAGGAGAGAACCGGAGCTTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGTGTTTATGGGCAGGAGTCTGGAGGATTTTTCCGGACCAGGAGAACCCGGAGCATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAACAGAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAACAGAGCAGCAGCTACGGGCAGCAGCAGTTCATTCCGACAGGACCACCCCCAGTAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCTCCTACTAGTTACCCCCCTCAGACTGGATCCTACAGCCAGGCTCCAAGTCAATATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCAGCCGAGCAGCTATGGACAACAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCCTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTACCCTACCAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGGGGTTACAACCAGCCCAGGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACTGCATATGGCACCCAGCCTGCCTACCCCACCTATGGCCAGCAGCCAACAGCCACCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCCTATGAAGATCCACCAACTGCAAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTT
                                                     GTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTT
                                                                                 ACCCATGATCCATATCTACCTGGATAAGGAGACAGGAAAGCCTAAAGGGGACGCCACAGT
                                                                                                           ACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGT
                                                                                                                                                                                             TGAAGACTCTGACAACAGTGCAATTTATGTGCAAGGATTAAATGACAATGTGACTCTGGA
                                                                                                                                                                                                                                                  GCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCTTCCTATAGATCCCGA
                                                                                                                                                                                                                                                                                                                                                            TGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGG
                                                                                                                                                                                                                                                                                                                                                                                    TGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCTCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCCTCTCACAGCCGACTAGTTACGATCAGAGCAGTTACTCTCAGCAGAACACCTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCTGGGAGCTACCCAATGCAGCCAGTCACCGCACCTCCATCTTATCCTCCTACCAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGGGGTTATAACCAACCCAGCCTAGGATATGGACAGAGTAACTACAGCTATCCCCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCTACCAGACCACAGGATGGTAACAAGCCTGGGGACTAGTCAACCTCAATCTAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAGGCCTCCTATGCAGCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -ĠĊĠĊŦĠĠĀĠĀĠĊĠĀĠĠŦĠĠĊŦŦĊĀĀŦĀĀ
 1407
                                                      1347
                                                                                                                                                                 1227
                                                                                                                                                                                                                                                  1077
                                                                                                                                                                                                                                                                                                       1017
                           1317
                                                                                                          1287
                                                                                                                                      1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            567
                                                                                 1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               387
                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                      987
                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                              927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
```

```
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                RESULT 13
AK049743
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                    VERSION
                                                                                                                                                                               KEYWORDS
                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2031
                                                                                                                                                                                                                               Mus musculus 12 days embryo spinal enriched library, clone:C530046A18 full insert sequence.
  Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
                                                                                                                                 HTC; CAP trapper.
Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                    AK049743.1 GI:26093614
                                                                                                                                                                                                                             AK049743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGCTTCCCTCCAAGAGGACCCCCGGGGGTTCCCCGAGGGAAACCCCTCTGGAGGAGGAGAAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGCCCAGGAGGTCCTGGGGACCCCATGGGTCGCATGGGAGGACCCGTGGAGGAGATAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAAGGAAGCAAACTTAAAGTGTCTCTTGCCCGAAAGAAGCCTCCAATGAACAGCATGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAATGTTTTAAATTTATAATTCCATATTTATAATGTTGGCCACAACATTATGATTATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACGTGGAGGACCTGGAAAAATGGATAAAAGGCGAGCACCGTCAGGAGCGCGCAGAGATCGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGGAGAACAGAATGCAACCAGTGTAAGGCCCCTAAGCCCGAGGGCTTCCTCCCGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGCTGTGGAAACCAGAACTTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGCTTCCCTCCAAGAGGGCCCCCGAGGCTCCAGAGGAAACCCCCTCTGGAGGAGGAAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGCCCAGGAGGCCCTGGAGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGACAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAATGTTTTAAATTTATAATTCCATATTTATAATGTTGGCGACAACATTATGATTATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTACTAGA-----GACCTGCAGAGCTGCATTGACGACCAGATTTATTTTTAAACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACGTGGAGGACCTGGGAAAATGGATAAAGGCGAGCACCGTCAGGAACGCAGAGACCGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGTGGCCCTGGGGCCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGAGGACTCATGGACCGTGGTGGTCCTGGAGGAATGTTCAGAGGTGGCAGAGGTGGAGA
                                                                                         Eutheria;
                                                                                                            Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                               2106
                                                                                       Chordata;
Rodentia;
                                                                                       Craniata; Vert
Sciurognathi;
                                                                                                                                                                                                                                                                  mRNA linear HTC 03-APR-2004 cord cDNA, RIKEN full-length product:Ewing marcoma homolog,
                                                                                       Vertebrata; Euteleostomi;
thi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Adachi, T., Aizawa, K., Akimura, T., Arakawa, T., Bono, H., Carninci, P. Pukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hashizume, W., Hayashida, K., Hayatsu, N., Hiramoto, K., Hiracaka, T., Hirozane, T., Hori, F., Imotani, K., Ishii, Y., Itoh, M., Kagawa, I., Kasukawa, T., Katoh, H., Kawai, J., Kojima, Y., Kondo, S., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Murata, M., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Ohsato, N., Okazaki, Y., Saito, R., Saitoh, H., Sakai, C., Sakai, K., Sakazume, N., Okazaki, Y., Saito, R., Shibata, K., Shinaki, T., Sogabe, Y., Tagami, M., Tagawa, A., Takahashi, F., Takaku-Akahira, S., Takahashi, F., Takaku-Akahira, S., Takahashi, F., Takaku-Akahira, S., Takahashi, M., Tagawa, A., Tomaru, A., Toya, T., Yasunishi, A., Muramatsu, M., and Hayashizaki, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, B., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A., and Hayashizaki, Y., RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Itoh, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y., Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new g Genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                              Submitted (16-JUL-2001) Yoshihide Hayashizaki, The Institute of Submitted (16-JUL-2001) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC) RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokoh Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.jp, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.jp, WRL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Pax:81-45-503-9216)

CDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Rigenomic Sciences Center and Genome Science Laboratory in RIKEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99279253
10349636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nature 420, 563-573 6 (bases 1 to 2269)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Group Phase I & II Team.
Analysis of the mouse transcriptome based of 60,770 full-length CDNAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FANTOM Consortium.
Functional annotation of a full-length mouse cDNA collection
                                                                                                                                                                                                                                                                       prepare mouse tissues.
Please visit our web site for further
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The FANTOM Consortium and the RIKEN Genome Exploration Research
                                                                                                                                                                                                                        URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/
                                                                                                                                                                                                                                                                                                                  Division of Experimental Animal Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The RIKEN Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11076861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11042159
    /tissue_type="spinal cord"
/clone_Tib="RIKEN full-length enriched mouse cDNA library'
                                                clone="C530046A18"
                                                                  db_xref="FANTOM_DB:C530046A18"
db_xref="taxon:10090"
                                                                                                                                   organism="Mus musculus"
|mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                685-690 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Exploration Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Group Phase
                                                                                                                                                                                                                                                                                                                     in Riken
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          on functional
                                                                                                                                                                                                                                                                                                                     contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                II Team
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Carninci, P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ohsato, N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Yokohama,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  genes
```

1921 GJAKCAGATISGGAGGAAGAKGAGGACGTISGAGGACCTIGGAAAAATISGATAAAGGCGA 1980 		841 ATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTC 900	S
1750 CCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGTCCTGGGGGGGCCTCCTGGACCTTTAAT	Db.	781 CTACAGCCAAGCTCAAGTCAATATAGCCAACAGAGCAGCAGCAGCGGGCAGCAGAGTTC 840	음 성
	Q D		<u> </u>
1801 AATGTTCAGAGGTGGCCGTGGTGGAGAAGATGGCTTCCGTGGTGGCCGGGGCATGGA	Q B 5	661 CAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTA 720	B 8
1681	S B &	601 ACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAG 660	음 ઇ
1521 ICGGGTTGTGGAAACCAGAACTTCGCTTGGAGAACAGAATGCAACCAGTGTAAGGCCCC 1511 TCCGGGCTGTGGAAACCAGAACTTCGCTTGGAGAACAGAATGCAACCAGTGTAAGGCCCC	, p &	541 ACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGC 600	유 성
151 AGGAACCCCTCTGAAGAGAAACGTCCAGACCTGAGATGTGAGACTGGCAGTGTCCCAA	?	481 TGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGG 540	유 성
1501 CATIGGANGGCUSTIGANGANGANTANANGANGGCTICCCTCCANANGANCICCUGGGGTTCCCT	da es	421 CTATGGGCAGCAGCAGCCAGCAGCCTACAAGACCGCAGGATGGAAACAAGCCCAC 480	무
1511 GCCACCACCACTCGTGGAGGTCCTGGGGGGGAACACGAGGGCCATGGGTCG	D 43	361 CACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGC 420	음 ઇ
1271	S B S	301 CAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTATGATACCACCACTGCTACAGTCAC 360	음 ઇ
1321 CGTGGAATGGTITGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCG	;	241 TGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCAGGCATA 300	유 성
1201 AGGARAGECCHARAGEGRALISCHARAGETGECHARAGETGARAGETGARAGETGARAGETGARAGETGARAGETGARAGETGARAGETGARAGATGARAGATAGAAGATGARAGATGARAGATAGAAGATGARAGATGARAGATAGAAGATGARAGATAGAAGATAGAATAGAAGATAGA	D D O	181 GCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTA 240	음 성
1201 1011ANNA 105ACARANGARC 1505CARC CCATGAT CACATGAT CACATGATARGATARGATARGATARGATARGATARGATAR) b 4	121 TCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACA 180	B 8
1141 AGAITHAANICACAGIGIGACTCIRAGHGACTGCGGCAGACTTCTTTAAGCAGIGIGAGGT		61 CAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAC 120	유 성
989	D 5	1 AGAGGGAGACGTTGAGAGAACGAGGAGGAAGGAGAAATGGCGTCCACGGATTA 60 	유 성
989		Ouery Match 74.1%; Score 1769.8; DB 3; Length 2269; Best Local Similarity 87.2%; Pred. No. 0; Matches 2089; Conservative 0; Mismatches 147; Indels 161; Gaps 7;	
1021	<i>ک</i> ا		ဝ္
961 ATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGAGGAGGACGCGGTGGAATGGGCAG 1020	Qy Db	olyA_site	:
y : 901 CGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAAGGGGAAGAGGGGG 960 	Qy dt		
845 ATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTC		12 days embryo"	

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                          PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 14
AK014366
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
MEDLINE
                                                                                  JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                              JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
                                                                                                                                             TITLE
                                                           PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2161
                                                                                               Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sabaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Pujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohata, B., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y., RIKEN integrated sequence analysis (RISA) system.—384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                               Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AK014366 1379 bp mRNA linear HTC 03-APR-200 Mus musculus 17 days embryo head cDNA, RIKEN full-length enriched library, clone:3300002D11 product:Ewing sarcoma homolog, full
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AK014366.1 GI:12852167
The RIKEN Genome Exploration Research Group FANTOM Consortium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                  20499374
                                                                                                                                                                                                                                                                                                                               1042159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAATGTTCATGGTTGTGATGTTTTTTTTTTTTTTTAAAATAAAATTCCAAATGTTT 2368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AACCCCTTGTGAGCATGCTCAGTATCATTGTGGAGAACCAAGAGGGCCTCTTAACTGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAGAAACATTAAAACAAGTTAAATGGTAGTGTGCGGAGTTTTT-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGTTGGCCACACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTTCACCATTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACGACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTCCATATTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACTACCAGATTTATTTTTTAAACCAGAAAATGTTTTAAAATTTATAATTCCATATTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGAGCTGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAATGTTCATGGTTGTGA-----TTTTTTTTTTAAATAAAATTCCAAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MACCCCTTGTGAGCATGCTCAGTATCATTGTGGAGAACCAAGAGGGCCTC-TAATTGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTTGATTTGTTCTTTTTTTTTCCTTTTTAAGATGGTTGTTTTAAGACTTAACAATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCACCGTCAGGAACGCAGAGCCGGCCCTACTAGA-----GACCTGCAGAGCTGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 , CAP trapper.
musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTTCTTCCTTCTTTTAAAAATGGTTGTTTAAGACTTTAACAATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                     Phase
                     II Team
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HTC 03-APR-2004
                   and
                                                                                                                                                                                                                                                                                                                                                                                    new genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                   polyA_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                            polyA_signal
```

```
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Adachi, J., Aizawa, K., Akahira, S., Akimura, T., Arai, A., Aono, H., Arakawa, T., Bono, H., Carninci, P., Fukuda, S., Fukunishi, Y., Furuno, M., Hanagaki, T., Hara, A., Hayateu, N., Hiraoko, T., Hori, F., Imotani, K., Ishii, Y., Itoh, M., Izawa, M., Kasukawa, T., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C., Saito, H., Saito, R., Sakai, C., Sakai, K., Sano, H., Sasaki, D., Shibata, K., Shibata, Y., Shibat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokoha Kanagawa 230-0045, Japan (B-mail:genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riker Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues. First strand cDNA was primed with a primer [5' GAGAGAGAAGGAACCAAGAAGCTCTTTTTTTTTTTTVN 3'], cDNA was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Group Phase I & II Team.
Analysis of the mouse transcriptome of 60,770 full-length CDNAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nature 420, 563-573
6 (bases 1 to 1379)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Punctional annotation of a full-length mouse cDNA collection Nature 409, 685-690 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Please visit our web site (http://genome.gsc.riken.jp/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The FANTOM Consortium and the
                                                                                                                                                   /codon_start=3
/protein_id="Bab29301.1"
/protein_id="Bab29301.1"
/protein_id="Bab29301.1"
/db_xref="01:12852168"
/translation="LGSAGERGGFNKPGGPMDEGPDLDLGLPIDPDEDSDNSAIYVQG
/translation="LGSAGERGGFNKPGGPMHIJYLDEETIGKPGDATWSYEDPPTAKA
LNDNWTLDDLADFFKQCGVVKNNKRTGOPMHIJYLDEETIGKPGDATWSYEDPPTAKA
LNDNWTLDDLADFFKQCGVVKNNKRTGOPMHIJYLDEETIGKPDATWSYEDPPTAKA
AVENTDGKDPGGSKLKVSLARKKPPMNSNRGGMPREGRGRMPPPLRGGFGGPGGPGF
MGRMGGRGGDRGFPFRGFRGSRGNFSGGNGNFRGGRGGTANDFGFCGNNPRAFTECN
OCKAPRFEGFLPPFPFFGGDRGRGGFGGFGGNGGRGGLMDRGGFGGNFRGGRGGRGGF
CCKAPRFEGFLPPFPFFGGDRGRGGFGGNGGRGGRGGLMDRGGFGMFRGGRGGRGFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /tissue_type="head"
/tissue_type="head"
/clone_lib="RIKEN full-length enriched mouse cDNA library"
/dev stage="17 days embryo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              putative"
note="putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="unnamed protein product;
(MGD|MGI:99960, GB|NM_007968, ev
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         clone="3300002D11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="FANTOM_DB:3300002D11"
/db_xref="taxon:1000"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     _type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIKEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           based
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          t; Ewing sarcoma homolog evidence: BLASTN, 99%,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           on functional annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        for further
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Yokohama
```

```
8 8 8 8 8 8 8
밁
          S
                           음 성 음
                                                                    ঠ 🔓 ঠ
                                                                                                              8 8 8 8
                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                            र्
                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                           음 성
                                                                                                                                                                                                                                                                                                                                                                                      당
                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                     ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 45.8%; Score 1094.4; DB 3; Length 1379; Best Local Similarity 89.7%; Pred. No. 1e-247; Matches 1249; Conservative 0; Mismatches 96; Indels 47; Gaps
                                                                                                                                                                                                                                                                                 1431
               1971
                                                                       1851
                                                                                                    1791
                                                                                                                                1731
                                                                                                                                                              1671
                                                                                                                                                                                                                         1551
                                                                                                                                                                                                                                                      1491
                                                                                                                                                                                                                                                                                                                1371
                                                                                                                                                                                                                                                                                                                                             1311
                                                                                                                                                                                                                                                                                                                                                                          1251
                                                                                                                                                                                                                                                                                                                                                                                                       1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1911
                                                                                                                                                                                            1611
                                                                                                                                                                                                                                                                                                                                                                                                                                    1131
                                                                                                                                                                             601
                                                                                                                                                                                                           541
                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                      121
                            901
                                                         841
                                                                                      781
                                                                                                                   721
                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                            241
961
                                                                                                                                                                                                                                      CCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCC 1550
                                                                                                                                                                                                                                                                                                                                                                                                                     TITATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGC 1190
          ATAAAGGCGAGCACCGTCAGGAGGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCA 2030
                           GGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCCTGGGGGGGCCCCCTG
                                                                                                                  GTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTG 1790
                                                                                                                                              GTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATC 1730
                                                                                                                                                                                                                                                                                                CCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGG 1430
                                                                                                                                                                                                                                                                                                                              CCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCT 1370
                                                                                                                                                                                                                                                                                                                                                           AGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGG 1250
                                                                                      GTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCC
                                                                                                                                                                            GGGGTTCCCGAGGGAACCCCTCTGGAGGAGAGACGTCCAGCACCGAGCTGGAGACTGGC
                                                                                                                                                                                                                                                                    ATAMAGGCGAGCACCGTCAGGAACGCAGAGACCGGCCCTACTAGA-----GACCTGCA
                                                                                                                                                                                                          GAGGCTCCAGAGGAAACCCCCTCTGGAGGAGGAAATGTCCAGCACCGAGCTGGAGACTGGC
1013
                                         1970
                                                                        1910
                                                                                                    1850
                                                                                                                                                                                                           600
                                                                                                                                                                                                                         1610
                            960
                                                         900
                                                                                      840
      ORIGIN
```

SOUTCE	FEATURES	ORGANISM REFERENCE AUTHORS TITLE JOURNAL COMMENT	RESULT 15 BX325713 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE	Qy 2 Db 1	Qy 2 Db 1	Qy 2 Db 1	D QQ	QQ YQ	Qy 2 Db 1	Qy 2
		Homo sap Eukaryot Mammalia 1 (base Li, W.B., Full-len Unpublis On May 2	BX325 BX325 Clone BX325 BX325 BX325 BX325 BX325	362 AATGTTTAATAA 2373 363 AATGTTTATAAA 1374	302 TTAACTGTAACAATGTTCATGGTTGTGATGTTTTTTTTTT	232 TAACAATGGGAACCCCTTGTGAGCATGCTCAGTATCATTGTGGAGAACCAAGAGGGCCTC 2301	2205	2151 CACCATTTGTGAAGAAACATTAAAACAAGTTAAATGGTAGTGTGCGGAGTTTTT 2204	091 CATATTTATAATGTTGGCCACAACATTATGATTATTCCTTGTCTGTACTTTAGTATTTTT 2150	031 GAGCTGCATTGACTACCAGATTTATTTTTAAACCAGAAAATGTTTTAAATTTATAATTC 2090

Query Match

41.4%;

Score 989.8;

DB 5;

Length 1049;

문

ঠ

ঠ

밁 ş 밁 ઠ 멍 ફ 밁 Ś 밁 Ś 밁 ફ 밁

Ś

밁

S 밁 δ 밁

8

음 성

밁 S 밁 Ş

밁 S 밁 ફ 밁

ई

1018 TGGAGASCGAGGTGGCTTC-ATAAGCCTGGTGG 1049

밁

Search completed: February 20, 2005, 16:17:44 Job time : 7071.46 secs

λ

```
Database
                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OM nucleic -
                              Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nucleic search,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IDENTITY_NUC Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              February 20, 2005, 00:41:37 ; Search time 8501.87 Seconds (without alignments)
11541.209 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4708233 seqs, 24227607955 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 gacggacgttgagagaacga.....agatgcagagaccccgcaga 2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-791-017A-1_COPY_8_2032
2025
                                                                                                                                                                                                                                                                                                                                                                  GenEmbl: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                 gb_pat:
gb_ph:
gb_ph:
gb_pr:
gb_ro:
gb_ro:
gb_ro:
gb_ro:
gb_vi:
gb_vi:
                                                                                                                                                                                                                                                                        ov: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sw model
SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9416466
```

ALIGNMENTS

16 17 18	c c 13	110	4 ህ ወ ሀ ወ ር	321	Result
1879.6 1798 1787.2 1787.2	1884.4 1879.6 1879.6	1975.4 1969.4 1966 1964.4	2011.4 2011.4 2008 2006 1979	2025 2023, 4 2023, 4	Score
88.8 88.3	93.1 92.8 92.8	97.3 97.1	99.3 99.3 99.1	100.0	Query Match
182501 2189 2188 2188 2188	193559 155815 180718	2364 1971 2189 2326	2371 2371 2182 2189 2164	2390 2390 2390 2390	t Query Match Length
1662	9 22 20	7 6 7 6	,00000	ر م م م ا	DB
AC011221 BC068226 AX305537 MMEWS	AC137500 AC018774 AL596087	BC011048 BT007796 AK056309 C0730352	A36460 AR080100 BC004817 CR456490 BC072442	CQ867364 AX411125 HSEWS	ID
AC011221 Homo sapi BC068226 Mus muscu AX305537 Sequence X79233 M.musculus	AC137500 Homo sapi AC018774 Homo sapi AL596087 Human DNA	BC011048 Homo sapi BT007796 Synthetic AK056309 Homo sapi CO730352 Semience	A36460 Sequence 1 AR080100 Sequence BC004817 Homo sapi CR456490 Homo sapi BC072442 Homo sapi	CQ867364 Sequence AX411125 Sequence X66899 H.sapiens E	Description

Query Match Best Local Similarity

100.0%;

Score 2025; Pred. No. 0;

DB 6;

Length 2390;

										u	ი					a	ი	ი					ი	ი	
45	44	43	42	41	40	39	38	37	36	35	4	ü	32	31	30	29	28	27	26	25	24	23	22	21	20
801.2	819	829.4	976.4	979	979	979	1010.8	1014.4	1168.8	1218	1223	1302.4	1373.8	1383.4	1428	1517.6	1517.6	1517.6	1625.8	1625.8	1652.4	1652.4	1731.6	1731.6	1785.6
39.6	40.4	41.0	48.2	48.3	48.3	48.3	49.9		57.7 2		60.4 2	64.3	67.8 2		70.5	74.9 2	74.9 2	74.9 2	80.3	80.3	81.6	81.6		85.5 1	88.2
2665	2412	2107	2473	2252	2179	1864	1303	7293	270337	75105	221924	2440	47757	221444	1783	263925	35241	226400	2026	2026	1988	1988	163104	132906	2396
UI (σ	9	9	9	9	9	9	9	N	N	N	Ŋ	N	N	σ	N	N	N	9	σ	ø	თ	N	N	v
BC063928	166247	HSU35622	AK026270	AF254088	AF254087	AF254086	BC000527	HSM808920	AC099212	AC118907	AC105889	AJ719366	AC121282	AC113313	CQ721057	AC106522	AC098231	AC128482	AK127624	CQ850483	AK056681	AX714390	AC110672	AC109802	BC083960 ·
BC063928 Xenopus t	I66247 Sequence 18	U35622 Homo sapien	AK026270 Homo sapi	AF254088 Homo sapi	AF254087 Homo sapi	AF254086 Homo sapi	BC000527 Homo sapi	BX648769 Homo sapi	AC099212 Rattus no	AC118907 Rattus no	AC105889 Rattus no	AJ719366 Gallus ga		AC113313 Mus muscu	CQ721057 Sequence	AC106522 Rattus no	AC098231 Rattus no	AC128482 Rattus no	AK127624 Homo sapi	CQ850483 Sequence	AK056681 Homo sapi	AX714390 Sequence	AC110672 Canis fam	AC109802 Canis fam	BC083960 Xenopus l

REFERENCE AUTHORS TITLE JOURNAL KEYWORDS SOURCE ORGANISM RESULT 1 CQ867364 LOCUS DEFINITION ACCESSION ORIGIN FEATURES VERSION CDS source Obendorf,M. and Wolf,S. Modulation of the activity of nuclear receptors via EWS Patent: EP 1455190-A 1 08-SEP-2004; Schering Akkiengesellschaft (DE) Location/Qualifiers CQ867364 2390 bp Sequence 1 from Patent BP1455190. CQ867364 GI:51997589 Homo sapiens (human) Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. /proteIn_id="CAH33891.1" /db_xref="GI:51997590" /db_xref="GI:51997590" /trinelation="MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY /trinelation="MASTDYSTYSQAAAQQGYSAYTAQPTQGYAYGTTQAYGQQSYGTT GYTTTQASYAAQSAYGTQPAYBAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQ PSLGYGQSSYGQQPFTSYPAPAYPAYBAYGAYBAYGAYGAYGAYGAYGQSSYGQQSSFQQHTYGQPB PSLGYGQSNYSYPQQPGSYPMQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNFYSQDHPSSMG PSLGYGQSNYSYPQQPGSYPMQPVTAPPSYPDTSYSSTQPTSYDQSSYGQQSSFQQHPSSMG YGQQSSYGQQSSYGQQPFTSYGGPTAGAAYEMPDGKDFQGGRGMGSAGBRGGRU KPGGPMDHGTJLDKETGKFXGDATVSYEDPPTAKAAVEMPDGKDFQGSKLKVSLARKKPP TGQPMIHIYLDKETGKFXGDATVSYEDPPTAKAAVEMPDGKDFQGSKLKVSLARKKPP /organism="Homo sapiens" /mol_type="unassigned DNA" /db_xref="taxon:9606" 44...2014 LMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY" P\$GGGNVQHRAGDWQCFNPGCGNQNFAWRTECNQCKAFKPEGFLPPPFPPPGGDRGRG GPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGGPPGP ${f MNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGN}$ codon_start=1 note="unnamed protein product" . 2390 DNA linear PAT 13-SEP-2004

D	B & B	5 & B	. Q	유 <i>성</i>	dg VQ	유 성	B 8	당 왕	유 왕	₽ Q	유 성	B &	B &	B 8	D Q	g Qy	Matche
961 CGTGGAGGCATGAGCAGAGGTGGGCGGGAAGGAGGACGCGGTGGAATGGGCAGCGCTGGA 1020	948 CAGGACCACCCCAGTAGCATGAGTGTTTATGGGCAGGAGTCTTGAGGATTTTCCGGACCA 907 901 GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGAT 960	B CANGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCAGCAGCAGAGTTCATTCCGA 8 1 CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTTCGGAGGATTTTCCGGACCA 9	1 CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCAGCAGCAGAGTTCATTCCGA	721 CAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCACCC	661 TCTCAGCAGAACACCTATGGGCAACCGAGCAGCAGCAGCAGCAGCAGTAGCTATGGTCAA 720	601 TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC 660	541 AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA 600	481 AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT 540	421 CAGCAGCCAGCAGCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT 480	361 CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG 420	301 CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACC 360	241 TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG 300	181 GATGTCAGCTATACCCAGGCTCAGACCACTGCGAACCTATGGGCAGCGCCTATGCAACT 240	21 TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCACT 1	61 TATAGCCAAGCTGCAGCGCAGGGCTACAGTGCTTACACCGCCCAGCCCAAGCA 120	1 GACGGACGTTGAGAGAACGAGGAGGAAGAGAAAATGGCGTCCACGGATTACAGTACC 60	es 2025; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
											<u>.</u>						
RESULT 2 AX411125 LOCUS DEFINITION ACCESSION VERSION KEYWORDS	Qy Db	Qy db	, dd 4 0	B &	? B \$	D 1	S B 7	S B 8	} B #	₹ B £	\$ B :	OV Db	Q B	& B	Q Db	Q B :	Q
AX411125 Sequence AX411125 AX411125	1981 CAGGAGCG 1988 CAGGAGCG	1921 ATGGGAGG 1928 ATGGGAGG	1861 GGCTTTGG 1868 GGCTTTGG					1568 CCCTCTGG					1268 CCCAAAGG	1208 ATGAACAA			1081 GGCCCACC
772 from GI:2144	CAGAGATCGGC CAGAGATCGGC	aagaagaggagg aagaagaggagg	TGGAGGAAGAC	CCGTGGTGGAG	GCGGGGAGGAAG	CCTCCCGCCACC				HIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		 TGGGAAAGATTT GAACAGTATGCG		GAGAACTGGGCA GAGATGCCACAGT	 TGTGACTCTAGA GAGAACTGGGCA	 TGTAGATCCAGA TGTGACTCTAGA	TGTAGATCCAGA
2390 bp Patent WO0229103 3830	CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA 2025	ATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT	GGCTTTGGTGGAGGAGGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAG	AGAGGTGGCCGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTAGAGGTGGCCGGGGGCATGGACCAAGAGGTGGCCTTCCGTGGTGGCCGGGGGCATGGACCAAGAGGTGGACCAGGGTGGACCAAGAGGTGGACCAAGAGGTGGACCAAGAGGTGGACCAAGAGGTGGACCAAGAGGTGGACCAAGAGGTGGACCAAGAGGTGGACCAAGAGGTGGACCAAGAGGTGGACCAAGAGGTGGACCAAGAGGTGGACCAAGAGGTGGACCAAGAGGTGAAGAGAGAG				TETTGGAGAACTTTCGCCTGGAGACAACCTGCAACCCTGGAGACTAACCAACC				TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGAAG	CCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCACCCA	ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGAACAAGGCTGCCAGGAAAAG	ATGAACAAGAGAACCCCATGATCCACATCTACCTGGACAAGGAAAAGAAAG		TGAAGACTCTGA
DNA)3.	GAGACCC	TGGAAAAA TGGAAAAA	######################################	CCGTGGT	GGATCGT	GGATCGTC	GEGETGGT	TGGAGAC	 AAGAGGAC	AAGAGGAC	ACCCCGTO	ACTTAAAC	ACTTAAAG	CATCTACC	CATCTAC	CAACAGTO	CAACAGTO
linear	CGCAGA 20	ATGGATAA ATGGATAA	CTGGACC	36CCGGGG	Greece	HIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	ATCGTGG	GGCAGTGTAAC		GCCGGGGG	 AGGGCAGF	HIIIIIIII FICTCCCTT BAGGGCAGF	CTGCCAAG	TGGACAAG	TGGACAAG	 CAATTTAT AGCAGTGT	CAATTTAT
PAT 1	025 032	AGGCGAGC	TTTGATGG	ATGGACC	 :::::::::::::::::::::::::::::	CGTGGAA	GCCCCAA	GCCCAATC	TCCCBATC	TCCCGAGO	GGTCGCAT	GGCATGCC	GCTGGGA	GAAACAG(GGGGTTG	GTACAAGO	'GTACAAGO
14-JUN-2002		ACCGT 1980 ACCGT 1987	AACAG	HAGGT	FGTTC		ECCT FCCT		GAAC	GAAS	GGGA	ACCA	GAAG	AAAAG 'GGAA	TAAG	TAAC	ATT

		g Qy	\$ &	d A	D Qy	Qy Db	4g V9	Qy Db	g &	g Q	Qy Db	\$ &	у ма Loc hes	ORIGIN	FEATURES source	REFERENCE AUTHORS TITLE JOURNAL	SOURCE ORGANISM
21 CAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGC	TCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAA 72		541 AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA 600	481 AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT 540	421 CAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT 480	361 CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTTATCCAGCCTATGGG 420	301 CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACCTGCTACAGTCACCACCACCACC 360	241 TCTTATGGACAGCCTCCCACTGGTTATACTACTGCCAACTGCCCCCCAGGCATACAGCCAG 300	181 GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT 240	121 TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT 180	61 TATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA 120	acgaggaggaaggagaaaatggcgtccacggattac 	Match 99.9%; Score 2023.4; DB 6; Length 2390; ocal Similarity 100.0%; Pred. No. 0; s 2024; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	signed D :9606" Bank Acc	GENE	1 Alvares,C., Horne,D., Peres-da-Silva,S. and Vockley,J.G. Gene expression profiles in liver cancer Patent: WO 0229103-A 3772 11-APR-2002;	Homo sapiens (human) Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
	н 0				a 0					п о		п о	п. О	п о		п. О	
99 11 11 12 12 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	Qy 1:	Qy 1	Оу Db 1		<u>بر</u> بر					Qy 1 Db 1		ο _γ 1	Qy 1 Db 1	B &	D Q	B 8	
801 AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT 1860	741 GGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTC	.681 GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT	621 TGTGGAPACCAGAACTTCGCCTGGAGPACAGAGCCACCAGTGTAAGGCCCCAPAGCCT 							1201 ATGARCAGRAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAC 		1081 GGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA	1021 GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA	961 CGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCCGGTGGAATGGGCAGCGCTGGA	901 GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGAT	841 CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCA	

```
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
HSEWS
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDS
                                             misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            H.sapiens
X66899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Delattre,O., Zucman,J., Plougastel,B., Desmaze,C., Melot,T., Peter,M., Kovar,H., Joubert,I., de Jong,P., Rouleau,G., Aurias,A. and Thomas,G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 X66899.1 GI:547565
RNA binding protein.
Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HSEWS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (26-MAY-1992) O. Delattre, Lab. de Genet. des Tumeurs. Inst. Curie, 26 rue D'Ulm, 75231 Paris Cedex, FRANCS On Sep 23, 1994 this sequence version replaced gi:31279.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gene fusion with an ETS DNA-binding domain caused by chromosome translocation in human tumours
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1522903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGGGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGAGCGCAGAGCCCCTACTAGATGCAGAGACCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 2371)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/chromosome="22q12"
/clone="BF1AC5"
/tissue_type="brain"
/clone_lib="cDNA, Stratagene 936206"
/dev_stage="foetus"
                                                                                                                                                                                          /product="RNA binding protein"
/product="RNA binding protein"
/product="GA47350.1"
/product="GA47350.1"
/product="GA47350.1"
/product="GA131280"
/db_xref="GG131280"
/
                                                                                     KPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMNKR
TGQPW1HIYLDKETGKEKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKP
MNSMRGGLPPREGRGMPPPLRGGPGGPGGPGFMGMMGGGGDRGGFPRGPRGSRGL
PSGGGNVQHRAGDWQCFUPGCGNQNFAMTTECNQCKAPKPEGFLPPFPPPGGDRGRG
GPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGPGGPPGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /gene="EWS"
44. .2014
                                                                   LMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"
                                                                                                                                                                                                                                                                                                                                                                                                                                         /gene="EWS"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EWS mRNA
/gene="EWS"
/bound_moiety="RNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 L. .<u>2</u>390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ďď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRI 28-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                      맑
                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                           닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
         밁
                                    ঠ
                                                                                          밁
                                                                                                                                S
                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 2024; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polyA_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           polyA_signal
                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          128
         848
                                                                                            788
                                                                                                                                                                                 728
                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                       899
                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                        809
                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                              548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             68 TATAGCCAAGCTGCAGCGCAGCAGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACGGACGTTGAGAGAACGAGGAGGAAGGAGAGAAAATGGCGTCCACGGATTACAGTACC
                                    CAGGACCACCCCAGTAGCATGGGTGTTTTATGGGCAGGAGTCTGGAGGATTTTTCCGGACCA
                                                                                          CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                         CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                                                                                                                        CANAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGC
                                                                                                                                                                                                                                                                                                                                                                                                   TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCAGCCAGCAGCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCCACTCAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACGGACGTTGAGAGAACGAGGAAGGAAGAAAAATGGCGTCCACGGATTACAGTACC
           CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCA
                                                                                                                                                                               CANAGEAGETATGGGCAGCAGCCTCCCACTAGTTACCCACCCCANACTGGATCCTACAGC
                                                                                                                                                                                                                                                                                                                TCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                              AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2162. .2167
/gene="EWS"
/evidence=experimental
2355
/gene="EWS"
/gene="EWS"
/evidence=experimental
2371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /gene="EWS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 2023.4;
; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ۲;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 2390;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 127
                                                   900
                                                                                            847
                                                                                                                                         840
                                                                                                                                                                                    787
                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                       727
                                                                                                                                                                                                                                                                                                                                                             667
                                                                                                                                                                                                                                                                                                                                                                                                                                                  607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          427
             907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
```

Peter, M.,

2 INVOLVED

Ä

PAT 05-MAR-1997

```
GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA 1080
                                            ATGGGAGGAAGAAGAGAGGACGTGGAAGAAGAAGATAAAGGCGAGCACCGT
                                                                                                                GGCTTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGGCCCCCTTGGACCTTTGATGGAACAG
                                                                                                                                                                                             AGAGGTGGCCGTGGAGGACAGAGGTGGCTTCCCGTGGTGGCCGGGGCATGGACCCGAGGT
                                                                                                                                                                                                                                            GTGGCATGCGGGGAGGAGGAGGTGGCCTCATGGATCGTGGTGCCCGGTGGAATGTTC
                                                                                                                                                                                                                                                                           GGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTC
                                                                                                                                                                                                                                                                                                                   GAAGGCTTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT
                                                                                                                                                                                                                                                                                                                                                        GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCTCTGGAGGAAGGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCCGAGGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACACGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAG 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGGAAGAGGGGGGATTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAAGAGGGGGGATTTGAT
                                                                                                                                                                    AGAGGTGGCCGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                                                                                                                                                                                                             TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                              TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGACGAGGGCGGTGGAATGGGCAGCGCTGGA 1020
                   ATGGGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT
                                                                                              GGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGCCCCCTGGACCTTTGATGGAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCTCTGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGACCCATGGGTCGCATGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCCCTCCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA 1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGACGCGGTGGAATGGGCAGCGCTGGA
                   1987
                                                                                            1927
                                                                                                                                                                    1867
                                                                                                                                                                                                         1860
                                                                                                                                                                                                                                              1807
                                                                                                                                                                                                                                                                                 1800
                                                                                                                                                                                                                                                                                                                                                          1740
                                                                                                                                                                                                                                                                                                                                                                                                                                1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1027
                                                                                                                                                                                                                                                                                                                     1747
                                                                                                                                                                                                                                                                                                                                                                                             1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1207
                                                          1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
A36460
LOCUS
                                                                         밁
                                                                                                    S
                                                                                                                                                                                Ś
                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
 문
                           δ
                                                                                                                                             밁
                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                          片
                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 2012; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 (bases 1 to 2371)
3 Aurias,A., Delattre,O., Desmaze,C., Melot,T., Peter,M.,
5 Aurias,A., Delattre,O., Desmaze,C., Melot,T., Peter,M.,
7 Plougastel,B., Thomas,G. and Zucana,J.
8 NUCLEIC ACID CORRESPONDING TO A GENE OF CHROMOSOME 22 INV
8 RECURRENT CHROMOSOMAL TRANSLOCATIONS ASSOCIATED WITH THE
8 DEVELOPMENT OF CANCEROUS TUMORS
9 L Patent: WO 9323549-A 1 25-NOV-1993;
1 CENTRE NAT RECH SCIENT (FR)
1 Other publication FR 2691475 931126
1 Other publication JP 8500964T 960206.
1 Location/Qualifiers
1 1 7371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    373
 481
                                    493
                                                                         421
                                                                                                            433
                                                                                                                                               361
                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                             313
                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                     253
                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                            193
                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13 GAGAACGAGGAGGAAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A36460
Sequence
A36460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A36460.1
TCTAGCACAGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTAT
                     TCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTAT
                                                                         GCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAA
                                                                                              GCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAA
                                                                                                                                                 TATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAGGCCTCCTAT
                                                                                                                                                                                                                                                                                                ACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGAACGAGGAGGAGGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99.3%; Scilarity 100.0%; For Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 from Patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/mol_type="unassigned DNJ
/db_xref="taxon:9606"
/dev_stage="FOETUS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. .2371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:2293778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 2011.4;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2371 bp
W09323549.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 몂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
```

0;

0

132 60 72

120

밁 S 밁

밁 S 밁 ঠ

1928 1921 1868 1861 1808 1801 1748 1741 1688

552 480 492 420 432 360 372 300 312 252 180 192

240

540

밁 र्

1681

ð

S 밁 श

밁

1628 1621 1568 1561 1508 1501 1448 1441 1388 1381 1328 1321 1268 1261 1208 1201 1148 1141 1088 1081 1028 1021 896 961 806 901

S

밁 S 밁

맑

ş

문 ş 밁 S 밁 S 밁 á 밁 S 밁 S 밁 Ś 밁 र्

```
1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1153
                                                                                                                                   1441
                                                                                                                                                                     1453
                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                       1393
                                                                                                                                                                                                                                                                         1321
                                                                                                                                                                                                                                                                                                            1333
                                                                                                                                                                                                                                                                                                                                            1261
                                                                                                                                                                                                                                                                                                                                                                              1273
                                                                                                                                                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                1213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1033
1561
                              1573
                                                                1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCCAGGTACCTGGGAGCTACCCCATGCAGGCAGTCACTGCACCTCCTACCCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAATATAGCCAACAGAGCAGCAGCTACGGCAGCAGGAGTTCATTCCGACAGGACCACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGCAGCAGCCCCCCAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCT
                   GGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCCAATCCGGGTTGTGGAAACCAG
                                                                                  GATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCCGAGGGAACCCCCTCTGGAGGA
                                                                                                                                                      GGTCCAGGAGGCCCAGGAGGTCCTGGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGA
                                                                                                                                                                                                                           AGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAAGGCATGCCACCACCACCCCGTGGA
                                                                                                                                                                                                                                                                                             AAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAGAAGCCTCCAATGAAC
                                                                                                                                                                                                                                                                                                                                              GCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGG
                                                                                                                                                                                                                                                                                                                                                                 GCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGG
                                                                                                                                                                                                                                                                                                                                                                                                              ACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCAGAGGTGGGCGGGAGGAGGAGGAGCGCGGTGGAATGGGCAAGCGCTGGAGAGCGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGATCGTGGAGGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTTGATCGTGGAGGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTTCCGGACCAGGAGAGAACCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAATATAGCCAACAGAGCAGCAGCTACGGGCAGGAGTTCATTCCGACAGGACCACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGCAGCAGCCTCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCTATGGGCAACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCTATGGGCAACCGAGCAGCTATGGACAGCAGCAGTAGCTATGGTCAACAAAGCAGCTAT
                                                                  GATAGI
                                                                                                                                    GGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGA
                                                                                                                                                                                                       AGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACCCCGTGGA
                                                                                                                                                                                                                                                                         AAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCCTCCAATGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>AGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGC</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1092
                                                                                                                                                                     1512
                                                                                                                                                                                                       1440
                                                                                                                                                                                                                                                                           1380
                                                                                                                                                                                                                                                                                                                                               1320
                                                                                                                                                                                                                                                                                                                                                                                                                1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1032
                                1632
                                                                  1560
                                                                                                  1572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
```

ş

문 र्

밁

밁 ঠ 밁 ð 밁 Ś 멍 S 밁 Ş 몽 S 片 5

밁 S 멍 ঠ 밁 S

ર્

밁

181

240

δ 밁 S 밁 5 밁 S 밁 5

밁

```
RESULT 5
AR080100
LOCUS
DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                           5
                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
유
                                                                            밁
                                                                                                                                                                         밁
                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 2012; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1813
                                         193
                                                                                      121
                                                                                                                                                                              61
                                                                                                                                                                                                                      73
                                                                                                                                                                                                                                                                                                                13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 (bases 1 to 2371)
1 (bases 2 to 2371)
1 (bas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AR080100
Sequence
AR080100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AR080100
                           ACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAG
                                                                                      ACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTAT
                                                                                                                                                                            GCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACC
                                                                                                                                                                                                        GCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCCACTCAAGGATATGCACAGACC
                                                                                                                                                                                                                                                                                         GAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATCGGCCCTACTAGATGCAGAGACCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATCGGCCCTACTAGATGCAGAGACCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGAGGAGGACGTGGAGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAAGACGAGGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAGGAAGAGGTGGCCTCATGGATCGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAAGCCTGAAGGCTTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAGGAGGACGTGGAGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGA
                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .2371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="unknown"
/mol_type="unassigned
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              from
                                                                                                                                                                                                                                                                                                                                                                               99.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGA
                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                 Score 2011.4;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2371 bp
: US 5968734.
                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2025
                                                                                                                                                                                                                                                                                                                                                                                                         BB
                                                                                                                                                                                                                                                                                                                                                            ۲,
                                                                                                                                                                                                                                                                                                                                                                                                         6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PAT
                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31-AUG-2000
                                                                                                                                                                                                                                                                                                                                                            Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1812
                                                                                                                                                                                                                          132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1692
                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ä
                                            252
                                                                                        180
                                                                                                                                  192
                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                               0
```

1392	1333 AAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAAC
1332 1320	.273 GCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGG
1272 1260	1213 ACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAACAGGAAAGCCCAAAGGCGAT
1212	3 ACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAI
1152 1140	093 GATCCAGATGAA
1092	1033 TTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTA
1032	973 AGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGC
972 960	913 AGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATG
912 900	853 AGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTTCCGGACCAGGAGAGAACCGG
852 840	793 CAATATAGCCAACAGAGCAGCAGCAGCGGCAGCAGAGTTCATTCCGACAGGACCACCCC
792 780	733 GGGCAGCAGCCTCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGT
732 720	673 ACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTAT
672 660	613 ACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAAC
600	553 CCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCT
552 540	493 TCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTAT
492 480	433 GCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAA
432 420	373 GCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGC
372 360	13 TATGGCACTGGTGCTTATGATA
312	53 CCTCC 41 CCTCC

뭐 र् 밁 á 밁 ঠ 문 ठ 밁 ઇ 밁 ક 문 8 밁 ş

g Qy	B 8	B 8	B &	B 8	B 8	B 8	B 8	B 8	p Q	B 8	DЪ
1993 1981	1933 1921	1873 1861	1813 1801	1753 1741	1693 1681	1633 1621	1573 1561	1513 1501	1453 1441	1393 1381	1321
GATCGGCCCTACTAGATGCAGAGACCCCGCAGA 2025	AGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGA 1992 	GGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAGA 1932	GGTGGAGACAGAGGTGGCTTCCGTGGTGGCCCGGGGCATGGACCGAGGTGGCTTTGGTGGA 1872	GGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGT 1812 	CCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGG 1752	AACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTC 1692	GGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAG 1632 	GATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGA 1572	GGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGACCGTGGAGGA 1512	AGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGA 1452	

ACCESSION VERSION KEYWORDS SOURCE ORGANISM Homo sapiens Ewing sarcoma breakpoint region 1, transcript variant EWS, mRNA (cDNA clone MGC:5432 IMAGB:3449145), complete cds.
BC004817 BC004817.1 GI:13435962
MGC. Homo sapiens Homo sapiens (human)

RESULT 6
BC004817
LOCUS
DEFINITION

문 Ş 음 &

닭 ई 닭 ð

ð

र्

밁

S

문 S 밁 S 밁 5 밁 Ş

밁

REFERENCE AUTHORS Eukarycta; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

B 1 (bases 1 to 2182)

E 1 (bases 1 to 2182)

E Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G., Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Klausner, R.D., Collins, F.S., Buetow, K.H., Schaefer, C.F., Bhat, K.K., Hopkins, R.F., Jordan, H., Moore, T., Max. S.I., Wang, J., Hsieh, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Scheetz, T.B., Brownstein, M.J., Usdin, T.B., Toshiyuki, S., Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Millahy, S.J., Bosak, S.A., McEwan, P.J., AMCKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S., Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W., Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., .,

```
JOURNAL
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene
                                                                                                                                                                                                                                                                                                                                                                                                               Sac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Bouffard, G.G., Blakesley, R. W., Touchman, J. W., Green, E.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M., Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E., Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A. Generation and initial analysis of more than 15,000 full-length human and marse and marra.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (21-MAR-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Loulseged,
Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati,
A.N., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Baylor College of Medicine Human Genom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-rémail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Strausberg, R.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Clone distribution: MGC clone distribution information can be for through the I.M.A.G.B. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Flate: 3 Row: 1 Column: 6 This clone was selected for full length sequencing because it passed the following selection criteria: Hexamer frequency ORF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequencing Center
Center code: BCM-HGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human and mouse cDNA sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases 1 to 2182)
              Natl. Acad. Sci.
                                                                                                                                                                                                                                                                                                                                                                                                                           /gene="EWSR1"
/note="synonym: EWS"
/db_xref="LocusID:2130"
/db_xref="MIM:133450"
PSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGDRGRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="MGC:5432 IMAGE:3449145"
/clssue_type="Placenta, choriocarcinoma"
/clone_Tib="NIH_MGC_10"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="Vector:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99 (26), 16899-16903 (2002)
```

```
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                   밁
                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                S
                                              片
                                                                      δ
                                                                                                 밁
                                                                                                                     Ś
                                                                                                                                                                        δ
                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
961
                                                 901
                                                                                                                          858
                                                                                                                                                   781
                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                             819
                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                      481 CACAGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAACTCAAGGATATGCACAGACCACCCA
               AGGTGGGCGGGAGGACGCGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAA 1037
                                                               GAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGATCGTGGAGGCATGAGCAG
                                                                                                                  CATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTTCCGGACCAGGAGAGCAACCGGAGCAT
                                                                                                                                                                     TAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCCAGTAG
                                                                                                                                                                                                                                                                                                                    CTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTA
                                                                                                                                                                                                                                                                                                                                                      GGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTACCAG
                                                                                                                                                                                                                                                                                                                                                                   GGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                      CACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAGGCCTCCTATGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCCAGGCCTCCTATGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGC
                                                 GAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAG
                                                                                                                                                   TAGCCAACAGAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAG
                                                                                                                                                                                                                            GCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATA
                                                                                                                                                                                                                                                                              TGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCA
                                                                                                                                                                                                                                                                                                     CTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99.2%; Score 2008;
100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      137
                                                                                                                                                                                                                                                                                                                               677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                      840
                                                                                                                                                                             857
                                                                                                                                                                                                                                                                                                                                                                                                                                557
                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    317
  1020
                                                                           977
                                                                                                    900
                                                                                                                             917
                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                               737
                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                617
                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                    960
```

```
RESULT 7
CR456490
LOCUS
                                                                                              δ
                                                                                                                                 밁
                                                                                                                                                         Ś
                                                                                                                                                                                        밁
                                                                                                                                                                                                              ક
                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                 र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                           밁
                                                                                                                                 1921
                                                                                                                                                             1938
                                                                                                                                                                                          1861
                                                                                                                                                                                                                     1878
                                                                                                                                                                                                                                                  1801
                                                                                                                                                                                                                                                                                                           1741
                                                                                                                                                                                                                                                                                                                                    1758
                                                                                                                                                                                                                                                                                                                                                                  1681
                                                                                                                                                                                                                                                                                                                                                                                               1698
                                                                                                                                                                                                                                                                                                                                                                                                                          1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1218
                                                                                                                                                                                                                                                                              1818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1021
                                                                           1981
                                                                                                       1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1038
    CR456490
                                                                                                                                                                                                                                                                                                                          AAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGG
                                                                                                                                                                                                                                                                                                                                                                                 ACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGG 1757
                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCC 1697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTTGATGGGAAAGA 1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCAC 1277
                                                                                          GCCCTACTAGATGCAGAGACCCCCGCAGA
                                                                                                                                                                                        ACGAGGTGGCCCTGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGG
                                                                                                                                                                                                                                                                  AGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTTGGTGGAGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTTGTGGAAACCAGAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCCGAGGGAACCCCCTCTGGAGGAGGAAA 1577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGAGGCCCAGGAGGTCCTGGGGGACCCCATGGGTCGCATGGGAGGACGACGATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTAT 1397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGG 1217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCC
                                                                           GCCCTACTAGATGCAGAGACCCCGCAGA
                                                                                                                                 AGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCG
                                                                                                                                                    AGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCG 1997
                                                                                                                                                                                                                    ACGAGGTGGCCCTGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGG
                                                                                                                                                                                                                                                AGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAG
                                                                                                                                                                                                                                                                                                         AAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                          CGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAA 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAG 1517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCC 1457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGA 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCAC 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCT
    2189
   đđ
                                                                           2008
                                                                                                      2025
    mRNA
   linear
   PRI 25-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1637
                                                                                                                                                                                                                     1937
                                                                                                                                                                                                                                                                             1877
                                                                                                                                                                                                                                                                                                                                    1817
                                                                                                                                                                                                                                                                                                                                                                 1740
                                                                                                                                                                                                                                                                                                                                                                                                                          1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                 1980
                                                                                                                                                                                                                                                1860
                                                                                                                                                                                                                                                                                                         1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1157
                                                                                                                                                                                          1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
ORGANISM
             δ
                                           밁
                                                                      S
                                                                                                    밁
                                                                                                                           Ś
                                                                                                                                                            밁
                                                                                                                                                                                    8
                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 2019; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
               244
                                              181
                                                                        184
                                                                                                      121
                                                                                                                               124
                                                                                                                                                            13
                                                                                                                                                                                        64
                                                                                                                                                                                                                    ۲
                                                                                                                                                                                                                                               4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo
GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCT
                                                                                                                     GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT
                                                                                                                                                                            AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAGCCCAAGGATAT
                                                                                                                                                                                                                                    GGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTAT
                                                                                                    GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT
                                                                                                                                                             AGCCAAGCTGCAGCGCAGGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATAT
                                                                                                                                                                                                                     GGACGTTGAGAGAACGAGGAGGAGAGAGAAAATGGCGTCCACGGATTACAGTACCTAT
                                                                                                                                                                                                                                                                             Conservative
```

0

0

Indels

3

Gaps

1

60

123

303

240

243 180 183 120

```
Sanger Institute name: pGEM.EWSR1
Homo sapiens cDNA sequence. This sequence was generated as part of The Wellcome Trust Sanger Institute program to isolate cDNA clones representing the full length open reading frame of well annotated protein coding genes on human chromosome 22. For more information see http://www.sanger.ac.uk/HGP/Chr22/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens EWSR1 full length open reading frame (ORF) cDNA clone (cDNA clone C22ORF:pGEM.EWSR1).
CR456490
CR456490.1 GI:47678510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (24-MAY-2004) Sanger Institute, Hinxton, Cambridge CB10 1SA, UK. E-mail enquiries: c22g@sanger.ac.uk Manuscript
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mammalia; Eutheria; Primates; Catarrhini; Homin 1 (bases 1 to 2189)
Collins, J.E., Wright, C.L., Edwards, C.A., Davis, Cole, C.G., Goward, M.E., Aguado, B., Mallya, M., M. Huckle, E.J., Beare, D.M. and Dunham, I. Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDNA; chromosome 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens (human)
                                                                                               /proteIn_id="CAG30376.1"
/db_xref="GI:47678511"
                                                                                                                                                                                                                                                                                                                                                                                                                                            gene="EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /db_xref="taxon:9606"
/chromosome="22"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. .2189
                                                                                                                                                                                                                                                                                                                                                                                    codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                       gene="EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /lab_host="JM109"
L. .2189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          clone="pGEM.EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eutheria; Primates; Catarrhini; Hominidae; Homo.
                      99.1%;
99.9%;
Score 2006; Di
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORF.
                                           DB
                                           9;
                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g,M.P.,
Mokrab,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cambridgeshire
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Grinham,J.A.,,Y.,
```

S 밁 8 밁

g S 닭 S 밁 S 8

138 137	324 TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAJ
3 1323 1317	1264 AAAGGCGATGCCACAGTGTCCTATGAAGACCCACCGACTGCCAAGGCTGCCGTGGAATGG
1263	1204 AACAAGAGAAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAACAGGAAAGCCC
12	1144 GACAGTGTGACTCTAGA [†] GATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATG
<u> </u>	084 CCACCTGTAGATCCAGATGAAGACT
10	024 CGAGGTGGCTTCAATAAĞCCTGGTGGACCCATGGATGAAGGACCAGAT
; 1023 ; 1017	4 GGAGGCATGAGCAGAAGGTGGGCGGGGAGGACGCGGTGGAA
963	04 GAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAC
903	44 GACCACCCCAGTAGCATĞGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCA
843	:AACAGAGCAGC :AACAGAGCAGC
783	SCAGOCTOCCACTAGTTACOCACOCOAAACTGGATGCTACAGO
723	64 CAGCAGAACACCTATGGĞCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAA
660	04 TACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACT
0 0	4 TACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTO
543	84 CAACCTCAATCTAGCACAGGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGA
483	TGGAAACAAGCCCACTGAGAC TGGAAACAAGCCCACTGAGAC
423 420	64 GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGC
363	04 GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC
300	241 TATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAGC

	gagcgcagagarcggcccracragargcagagaccccgcaga 2019	1978	Db
	GAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGGCAGA 2025	1984	Ş
1977	GGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAG	1918	뭥
1983	GGAGGAAGAAGAAGAGGACGTGGAGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAG	1924	Ş
1917	TTTGGTGGAGGAGACGAGGTGGCCCTGGGGCCCCCTTGGACCTTTGATGGAACAGATG	1858	뭥
1923	TTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATG	1864	Ş
1857	GTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC	1798	B
1863	GGTGGCCGTGGTGGACACAGAGGTGGCTTCCGTGGTGGCCGGGCATGGACCGAGGTGGC	1804	Ş
1797	GGCATGCGGGGGAAGAAGTGGCCTCATGGATCGTGGTCCCCGGTGGAATGTTCAGA	1738	밁
1803	GGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGA	1744	γQ
1737	GGCTTCCCGCCACCCTTTCCGCCCCCGGGTGATCGTGGCAGAGGTGGCCCTGGT	1678	ర్జ
1743	GGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT	1684	8
1677	GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCCAAAGCCTGAA	1618	g
1683	GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAA	1624	γQ
1617	TCTGGAGGAGGAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCCAATCCGGGTTGT	1558	Дb
1623	TCTGGAGGAAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGT	1564	Ş
1557	CGTGGAGGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCC	1498	뭥
1563	CGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCC	1504	8
1497	CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGC	1438	Дb
1503	CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGGACCCATGGGTCGCATGGGAGGC	1444	Ś
1437	CCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA	1378	皮
1443	CCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGGGCATGCCACCACCACCA	1384	Ş

REFERENCE AUTHORS

유

밁 Ş 밁 S 밁 ঠ 밁 δ g 5 ₽ 5 당 5

δ 밁 Ś 밁 ঠ 밁 Ş 밁 8

片

ACCESSION VERSION KEYWORDS SOURCE ORGANISM RESULT 8
BC072442
LOCUS
DEFINITION Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

El (bases 1 to 2164)

Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G., Strausberg, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Alteschul, S.F., Zebberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S., Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J., McKernan, K.J., Mullahy, S.J., Guaratne, P.H., Richards, S., Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W., Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Glbbs, R.A., Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Homo sapiens Ewing sarcoma breakpoint region 1, transcript variant EWS, mRNA (cDNA clone MGC:87992 IMAGE:6047805), complete cds. BC072442 BC072442.1 GI:48734726 Homo sapiens Homo sapiens (human)

```
PUBMED
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene
                                                                                                                                                                                                                                                                                                                                                                                          Sg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: nisc_mgc@nhgri.nih.gov
Akhter,N., Ayele,K., Becketrom-Sternberg,S.M., Benjamin,B.,
Akhter,N., Ayele,K., Becketrom-Sternberg,S.M., Brinkley,C., Brooks,S.,
Blakesley,R.W., Bouffard,G.G., Breen,K., Brinkley,C., Brooks,S.,
Bletrich,N.L., Granite,S., Guan,X., Gupta,J., Haghighi,P.,
Hansen,N., Ho,S.-L., Karlins, E., Kwong,P., Lartc,P., Legaspi,R.,
Hansen,N., Ho,S.-L., Karlins, E., Kwong,P., Lartc,P., Legaspi,R.,
Maduro,Q.L., Masiello,C., Maskeri,B., Mastrian,S.D.,McCloskey,J.C.,
McDowell,J., Pearson,R., Stantripop,S., Thomas,P.J., Touchman,J.W.,
Tsurgeon,C., Vogt,J.L., Walker,M.A., Wetherby,K.D., Wiggins,L.,
Yonnan R., Thomas, P.J., Wiggins,L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC/DCTD/DTP
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
CDNA Library Attional Institutes of Health Intramural
DNA Sequencing by: National Institutes of Health Intramural
Sequencing Center (NISC),
Gaithersburg, Maryland;
Web site: http://www.nisc.nih.gov/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 174 Row: 9 Column: 18
This clone was selected for full length sequencing because it leads to the clone was selected for full length sequencing because it
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (01-JUN-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bouffard,G.G., Blakesley,R.W., Touchman,J.W., Green,B.D., Dickson,M.C., Rodriguez,A.C., Grimwood,J., Schmutz,J., Myers,R.M., Butterfield,Y.S., Krzywinski,M.I., Skalska,U., Smailus,D.E., Schnerch,A., Schein,J.B., Jones,S.J. and Marra,M.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             passed the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Strausberg, R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (bases 1 to 2164)
                  Codon_start=1
/Codon_start=1
/product="Ewilg sarcoma breakpoint region 1, isoform EWS"
/protein_id="AAH72442.1"
/db_xref="LocusID:2130"
/db_xref="MIM:133450"
/db_xref="MIM:133450"
SGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGDRGRGG
                                                                                                                                                                                                                                                                                                                                                                                                             /note="synonym: EWS"
/db_xref="LocusID:2130"
/db_xref="MIM:133450"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /mol_type="mkNA"
/db_xref="taxon:9606"
/clone="MGC:87992 IMAGE:6047805"
/clone="MGC:87992 IMAGE:6047805"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /tissue type="Skin, melanotic
/clone lib="NIH MGC_72"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 e following selection criteria: matched mRNA gi: 4885224.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zhang, L.-H. and Green, E.D.
                                                                                                                                                                                                                                                                                                                                                                gene="EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene="EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="Vector:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 organism="Homo sapiens"
mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            pCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 melanoma."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ر
م
محر
                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
Ś
                                          밁
                                                                                  δ
                                                                                                                                  맑
                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  믔
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멅
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   멅
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
991 GGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGA 1050
```

PGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGGPPGPL MEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"

Query Ma Best Loc Matches	atch 97.7%; Score 1979; DB 9; Length 2164; al Similarity 99.8%; Pred. No. 0; 1992; Conservative 0; Mismatches 0; Indels 3; Gaps 1;	
σ ч	31 GAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGGGCAGCAGGGCTAC 90	
8 4	:AAGGATATGCA :AAGGATATGCA	
8 4	CAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCT	
в 4	11	
8 4	- -	
8 4	331 GATACCACCACTGCTACAGTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATAT 390	
8 4	р р	
8 4	1 ccgcago	
8 4	511 AACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGC 570	
<i>ያ</i> ፈ	571 TACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCAGCTACCAGCTATTCCTCTACA 630 [
8 4	631 CAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGC 690	
. 6 4	AGCTATGGACAGCAGAGTAGCTATGGTCAACAA	
8 4	1	
<i>ד</i>	811 AGCAGCTACGGGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTAT 870	
	871 GGGCAGGAGTCTGGAGGATTTTCCCGGACCAGGAGGAGAACCGGAGCATGAGTGGCCCTGAT 930	
σ ≺	931 AACCGGGGCAGGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGA 990	
	1 GGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAG	

```
밁
                                                                                                                                                                                    8
                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ર્જ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                     ð
                                                   용
                                                                         S
                                                                                                                               S
                                                                                                                                                              밁
                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                            1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1051
                                                                                                                                                                1798
                                                                                                                                                                                          1831
                                                                                                                                                                                                                     1738
                                                                                                                                                                                                                                                1771
                                                                                                                                                                                                                                                                          1678
                                                                                                                                                                                                                                                                                                     1711
                                                                                                                                                                                                                                                                                                                                1618
                                                                                                                                                                                                                                                                                                                                                                                     1558
                                                                                                                                                                                                                                                                                                                                                                                                                1591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1111
1978
                                                    1918
                                                                              1951
                                                                                                         1858
                                                                                                                                     1891
                                                                                                                                                                                                                                                                                                                                                          1651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                               GCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAAACTGGGCAACCCATGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGC 1830
                                                                                                                                                                                                                                                                                           CCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGGTGGCCTC
                                                                                                                                                                                                                                                                                                                                GAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCT
CAGAGACCCCGCAGA
                         CAGAGACCCCGCAGA 2025
                                                                       CCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATG 2010
                                                                                                                                  GGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGAGGAGGACGTGGAGGA
                                                                                                                                                                                 TTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTTGGTGGAGGAGAGACGAGGTGGCCCT 1890
                                                                                                                                                                                                                                                                           CCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAGGAAGAGGTGGCCTC
                                                                                                                                                                                                                                                                                                                                                                                     GCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAAGAGGACCCCGGGGTTCCCCGAGGGAAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGTCCTGGGGGACCCATGGGTCGCATGGGAGGACGCTGGAGGAGATAGAGGAGGCTTCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCACCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTG
                                                      CCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATG
1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1470
                                                    1977
                                                                                                                                     1950
                                                                                                                                                              1857
                                                                                                                                                                                                                                                                                                     1770
                                                                                                                                                                                                                                                                                                                                                          1710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1017
                                                                                                         1917
                                                                                                                                                                                                                                                                                                                                1677
                                                                                                                                                                                                                                                                                                                                                                                     1617
                                                                                                                                                                                                                                                                                                                                                                                                                                             1557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BC011048
LOCUS
                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                     REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PUBMED
```

RESULT

```
gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G.,
RS Klausher, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.E., Casavant, T.L.,
Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mallahy, S.J., Bosak, S.A., McEwan, P.J.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Villaion, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Villaion, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,
Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,
Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,
Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,
Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.
Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
Submitted (25-JUL-2001) National Institutes of Health, Mammalian Submitted (25-JUL-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center code: BCM-HGSC
Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: ang@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X., Huly
Kowis, C.R., Sneed, A.J., Martin, R.G., Muzi
A.N., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Baylor College of Medicine Human Genom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-rømail.nih.gov
Tissue Procurement: Lou Staudt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. (bases 1 to 2364)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BC011048 2364 bp mRNA linear PRI 29-JU
Homo sapiens Ewing sarcoma breakpoint region 1, transcript va
EWS, mRNA (cDNA clone MGC:16900 IMAGB:4340116), complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                      This
                                                                                                                                                                                                                                                                                                                                                                                                                                         Series: IRAK Plate: 12 Row:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Clone distribution: MG(through the I.M.A.G.E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Strausberg, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 2364)
                                                                                                                                                                                                                                                                                                     clone was selected for full length sequencing at the following selection criteria: matched mR Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                      /mol type="mRNA"
/db xref="taxon:9606"
/clone="MGC:16900 IMAGB:4340116"
/tissue type="Lymph, lymphoma"
/clone_Tib="NHH_MGC_85"
                                  note="Vector:
                                                                                                                                                                                                                                                               organism≔"Homo sapiens"
                                                          lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MG
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R.G., Muzny,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    information can be found http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ŭ.¥.,
                                                                                                                                                                                                                                                                                                                                                                                                      because
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Loulseged,
, Nanavati,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRI 29-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            variant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ξ.
```

4,

```
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 1989; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gg
                                                                                                                                                    513
                                                                                                                                                                                                         453
                                                                                              573
                                                                                                                           504
                                                                                                                                                                                 444
                                                                                                                                                                                                                                       384
                                                                                                                                                                                                                                                                  393
                                                                                                                                                                                                                                                                                               324
                                                                                                                                                                                                                                                                                                                         333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              153
                                                                   564
                                                                                                                                                                                                                                                                                                                                                     264
                                                                                                                                                                                                                                                                                                                                                                                 273
                                                                                                                                                                                                                                                                                                                                                                                                            204
                                                                                                                                                                                                                                                                                                                                                                                                                                       213
                624
                                        633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAG
                                                                                                                                                                                GCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAA 512
                                                                                                                                                                                                                                      GCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCCTATGGGCAACCGAGCAG
                                                                   CCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACA
                                                                                                                         CCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTA 572
                                                                                                                                                                                                                                                                                                            TACCACCACTGCTACAGTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGG
                                                                                                                                                                                                                                                                                                                                                                   TCCAACTGCCCCCCAGGCATACAGCCAGGCCTGTCCAGGGGTATGGCACTGGTGCTTATGA
                                                                                                                                                                                                                                                                                                                                                                                                                           AACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACA
              GCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAG
                                                                                                                                                                                                                                                                                               TACCACCACTGCTACAGTCACCACCACCAGGCCTCCTATGCAGCTCAGTCTGCATATGG
                                                                                                                                                                                                                                                                                                                                                                                                            AACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97.6%;
nilarity 99.8%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /translation="MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY
GQPTDYGYTQAQTTATYGQTAYAATSYGQPTQGYTTYTQAYTQAYTQAYTQAYGQOSYGTY
GQPTDYGYTQAQTTATYGQTAYAATSYGQPTGGYTTTTAQAYSQPYQGYGTGAYDTTT
ATVTTTQASYAAQSAYGTQPAYPAAYGQQPDAATAPTREQDGMKPTETSQPQSSTGGYNQ
PSLGYGQSYSYGQVPGSYPAQPYTAPPSYPTSYSSTQPTSYDQSSYSQQNTYGQPS
SYGQQSSYSQQQPPTSYPPQTGSYSQAPSQYSQQSSYSQQXSFRQDHPSSMG
VYGQQSGYGGQSGTSGPDHPDSDSDNSAYYQGLMDSYTLDDLADFFXQCGYVXMNKRT
GQPMIHIYLDKETGKPKGDATVSYEDPTAKAAVEWFDGKDFQGSKLKVSLARKKPPM
NSMRGGLPPREGRGMPPPLFLTGGPGGFPGGPGCMGKGGDFGGFPGGSKLKVSLARKKPPM
NSMRGGLPREGGMPGTTGGFGGFPGGFTGCMSMGGGFFGGFFGGFFGGRGGF
SGGGNVQHAAGDWQCFNPGCGNQNFAMTTECNQCKAPKPBGFLPPPFPGGDRGRGG
PGGMRGGRGGTMDRGGFPGGFFGGRGGDBGGFFGGGRGGGFFGGGRGGFPGPP
MEQMGGRRGGRGGFGGMFXGETGGDRGGFFGGTMDRGGFFGGGRRGGPGPPP
MEQMGGRRGGRGGFGGMMKGEHRQERRDRPY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="synonym: EWS"
/db_xref="LocusID:2130"
/db_xref="MIM:133450"
28. ..1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /product="Ewing sarcoma breakpoint region 
/protein id="AAH11048:1" 
/db xref="E0:1:502975" 
/db_xref="LocusID:2130"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="EWSR1"
/codon_start=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               db_xref="MIM:133450"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2364;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     isoform
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EWS"
                683
                                          692
                                                                    623
                                                                                                                                                                                                                                       443
                                                                                                                                                                                                                                                                                                                         392
                                                                                                                                                                                                                                                                                                                                                     323
                                                                                                                                                                                                                                                                                                                                                                                                            263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                83
                                                                                                                                                                                                                                                                                               383
ş
                           밁
                                                 ş
                                                                                 밁
                                                                                                   ક
                                                                                                                              몽
                                                                                                                                                          S
                                                                                                                                                                                 밁
                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                     중 유
                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                           1401
                                                                                                                                                                                                                                                                                                                                                                1341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1101
                                                                                                                                                                                               1521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              753
                           CAGCTACGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAG
GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                         TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                      CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA 1172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAG
                                                                                                                                                                                                            AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                   TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGAGCTTCCCTCC
                                                                                                                                                                                                                                                                                                            ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                            ACCCCGTGAGGGCAGAGGCATGCCACCACCACCTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                  ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAAACTGGGGCAACCCATGATCCA 1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGACGCGGTGGAATGGGCGAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCGGGGCAGGGGAAGAGAGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAA
                                                                                                                                                                                             AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                      TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                   ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGACGCGGTGGAATGG---GCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                    1652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1292
                                                                                                             1712
                                                                                                                                          1640
                                                                                                                                                                                               1580
                                                                                                                                                                                                                         1592
                                                                                                                                                                                                                                                     1520
                                                                                                                                                                                                                                                                               1532
                                                                                                                                                                                                                                                                                                           1460
                                                                                                                                                                                                                                                                                                                                      1472
                                                                                                                                                                                                                                                                                                                                                                   1400
                                                                                                                                                                                                                                                                                                                                                                                            1412
                                                                                                                                                                                                                                                                                                                                                                                                                         1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     752
```

문

유

밁 ક 음 성

음 성

밁 S 밁 S

밁 S 밁 S 밁 Ş

```
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 10
BT007796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                           gg
                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1821
                                                                                                                                                                                                                                                                                                                                                                                                        Circle, Palo Alto, CA 94303, USA
This CDS clone is a part of a collection of human full length
expression clones generated by BD Biosciences Clontech and the
Harvard Institute of Proteomics. Each CDS has been cloned in two
forms: with and without stop-codon (to allow fusion with C-terminal
tag). The CDS has been directionally cloned using BD In-Fusion(TM)
cloning system between the Sall and HindIII sites of the pDNR-DWAL
vector. Additional sequences in the clone: 'ACC' after Sall site
and before 'ATG' to provide Kozak consensus sequence; 'GG' after
last codon and before HindIII site to maintain reading frame.
Clone distribution: http://bioinfo.clontech.com/orfciones.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BT007796 1971 bp mRNA linear SYN 13-MAY-20
Synthetic construct Homo sapiens Ewing sarcoma breakpoint region
mRNA, partial cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 (bases 1 to 1971)
Kalnine, N., Chen, X., Rolfs, A., Halleck, A., Hines, L., Eisenstein, S., Koundinya, M., Raphael, J., Moreira, D., Kelley, T., LaBaer, J., Lin, Y., Phelan, M., and Farmer, A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   other sequences; artificial sequences.

(bases 1 to 1971)

Kalnine, N., Chen, X., Rolfs, A., Halleck, A., Hines, L., Eisenstein, Kalnine, N., Chen, X., Moreira, D., Kelley, T., Labaer, J., Lin, Koundinya, M., Raphael, J., Moreira, D., Kelley, T., Labaer, J., Lin, Phelan, M. and Farmer, A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        synthetic construct synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BT007796
BT007796.1 GI:30584430
FLI_CDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (13-MAY-2003) BD Biosciences Clontech, 1020 East Meadow
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cloning of human full-length CDSs in BD Creator(TM) System Donor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGACCCCGCAGA 2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGACCCCGCAGA 2013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC 1940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC 1952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG 1880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG 1892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCA 2012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCA
/product="Homo sapiens Ewing sarcoma breakpoint region 1"
/protein id="AAP36468.1"
/db xref="G1:3058431"
/translation="MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY
                                                                                                                                                                                                                          /lab
                                                                                                                                                                                                                                                                                           /mol_type="mRNA"
/db_xref="taxon:32630"
/clone="GH00297L1.0"
                                                                                                                                                                      . .>1971
                                                                                                                                                                                               note="Vector:
                                                                                                   trans
                                                                                                                            codon_start=1
                                                                                                                                                  note="Mutations: 1970:Stop->Leu"
                                                                                                                                                                                                                                                                    clone_lib="BD Creator(TM) CDS Library derived from MGC
                                                                                                                                                                                                                                                                                                                                                                organism="synthetic construct"
                                                                                                                                                                                            host="DH5alpha T1 resistant"
=="Vector: pDNR-Dual"
                                                                                                   _table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SYN 13-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tein,S.,
Lin,Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1820
```

> LMEQMGGRRGGRGGPGKMDKGEHRQERRDRPYL"

ORIGIN

Query Match
Best Local Similarity
Matches 1970; Conserv

Conservative

0

97.3**%;** 99.9**%**;

Score 1969.4; Pred. No. 0; 0; Mismatches

DB 12; ۲,

Indels Length

<u>.</u>

Gaps

0

Ş	37 ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCGAGGGCTACAGTGCT 96	
Дb	1 ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCT 60	
Q	97 TACACCGCCCAGCCCACTCAAGGATATGCACAGACCCACCC	
Db	61 TACACCGCCCAGCCCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC 120	
Ą	157 TATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC 216	
Db	121 TATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC 180	
§	217 TATGGGCAGACCCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA 276	
Db	181 TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA 240	
Ş	277 ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC 336	
В	241 ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC 300	
ğ	337 ACCACTGCTACAGTCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACT 396	
Db	301 ACCACTGCTACAGTCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACT 360	
Ş	397 CAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCCACTGCACCTACAAGACCCGCAG 456	
망	361 CAGCCTGCTTATCCAGCCTATGGGCAGCCAGCCAGCAGCCACTGCACCTACAAGACCGCAG 420	
8	457 GATGGAAACAAGCCCACTGAGACTGAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG 516	
Ъ	421 GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG 480	
8	517 CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCCAGGTACCTGGGAGCTACCCC 576	
Db	481 CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCC 540	
8	577 ATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCTACCAGCTATTCCTTCTACACAGCCG 636	
B	541 ATGCAGCCAGTCACTCCATCCTACCCTACCCAGCTATTCCTCTACACAGCCG 600	
Ą	637 ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTAT 696	
뫄	601 ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTAT 660	
Ş	697 GGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTAC 756	
B	661 GACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTAC 720	
Ş	757 CCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC 816	
Вb	721 CCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTATATAGCCCAACAGAGCAGCAGC 780	
Ş	817 TACGGGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAG 876	
?	Tap Tap Control of the Control of th	

781 TACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAG

957 A	897 CCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGAC 	837 GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCC 	777 CGTGGT 741 CGTGGT	717 GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAGGAAGAGGTGC	657 AACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCC	597 GACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCG	50	477 GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGAGATAGAGGAGGCTTV	417 CGTGAG 381 CGTGAG	357 AAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAAC 	297 CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGG	37 TACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGAT	177 TTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATC	17 AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGG	057 GATGAAGGAC 021 GATGAAGGAC	997 CGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCI	GGCAGGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGAG	
TACTAG 200	ACGTGGAGGACCTGGA 1956	െ—െ	CAGAGGTGGCTTCCGT 1836	AGGTGGCCTCATGGAT 1776 AGGTGGCCTCATGGAT 1740	<u>8</u> —8	CCTGGAGAACAGAGTGC 1656 CCTGGAGAACAGAGTGC 1620	CCAGCACCGAGCTGGA 1596	AGGCTTCCCTCCAAGA 1536 AGGCTTCCCTCCAAGA 1500	AGGCCCAGGAGGTCCT 1476	GGTGGTCTGCCACCC 1416	TCAAGGGAGCAAACTT 1356 CAAGGGAGCAAACTT 1320	TTCCTATGAAGACCCA 1296	ACCCATGATCCACATC 1236	GATCTGGCAGACTTC 1176 GATCTGGCAGACTTC 1140	TGAAGACTCTGACAAC 1116 GAAGACTCTGACAAC 1080	CATG 1	థై—భై	MARCEGARGERIGAGIEGECECIGAINACEGG 500

8 8 8 8

TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE

Unpublished

COMMENT

Submitted (24-OCT-2001) Takao Isogai, Helix Research Institute, Genomics Laboratory; 1532-3 Yana, Kisarazu, Chiba 292-0812, Japan (B-mail:genomics@hri.co.jp, Tel:81-438-52-3975, Fax:81-438-52-3986) NEDO human cDNA sequencing project supported by Ministry of Beconomy, Trade and Industry of Japan; cDNA full insert sequencing: Research Association for Biotechnology (RAB); cDNA library construction: Helix Research Institute (HRI) (supported by Japan Key, Technology Center etc.); 5'- & 3'-end one pass sequencing: RAB,

JOURNAL

Direct Submission

Bogai,T., Otsuki,T. and Sugiyama,T.

밁 Ş 밁 S 용 ঠ 밁 S 밁 S 밁 S 밁 S 밁 S 유 Ś 밁 S 문 ঠ 밁 S 밁 ş 밁 Ş

8 8 8 8 8

밁

```
JOURNAL
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 11
AK056309
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nagahari, K., Murakami, K., Yasuda, T., Iwayanagi, T., Wagatsuma, M., Shiratori, A., Sudo, H., Hosoiri, T., Kaku, Y., Kodaira, H., Kondo, H., Sugawara, M., Takahashi, M., Kanda, K., Yokoi, T., Furuya, T., Kikkawa, B., Omura, Y., Abe, K., Kamihara, K., Katsuta, N., Sato, K., Kikkawa, B., Omura, Y., Abe, K., Kamihara, K., Katsuta, N., Sato, K., Kikawa, M., Yamazaki, M., Ninomiya, K., Ishibashi, T., Yamashita, H., Kimata, M., Watanabe, M., Hiraoka, S., Chiba, Y., Ishida, S., Ono, Y., Takiguchi, S., Watanabe, S., Yosida, M., Hotuta, T., Xusano, J., Kanehori, K., Takahashi-Pujii, A., Hara, H., Tanase, T., Nomura, Y., Togiya, S., Komai, F., Hara, R., Takeuchi, K., Arita, M., Imose, N., Musashino, K., Yuuki, H., Oshima, A., Sasaki, N., Aotsuka, S., Yoshikawa, Y., Matsunawa, H., Ichihara, T., Sasaki, N., Sano, S., Moriya, S., Moniyama, H., Satoh, N., Takami, S., Terashima, Y., Suzuki, O., Nakagawa, S., Senoh, A., Mizoguchi, H., Goto, Y., Shimizu, F., Wakebe, H., Hishigaki, H., Watanabe, T., Sujiyama, A., Itakura, S., Fukuzuni, S., Fujimori, Y., Komiyama, M., Yanigani, A., Fujiwara, T., Ono, T., Yamada, K., Fujii, Y., Komusta, K., Hikiji, T., Kobatake, N., Inagaki, H., Itema, Y., Okamoto, S., Okitani, R., Kawakami, T., Nagaki, S., Matanabe, T., Nagase, T., Nomura, N., Kikuchi, H., Masano, Y., Yamashi, T., Nagase, T., Nomura, N., Kikuchi, H., Masano, Y., Yamashi, T., Nakagawa, K., Fujin, Y., Takahashi, Y., Nakagawa, K., Fujin, Y., Kompilete sequencing and characterization of 21,243 full-length human compassion.
Ishibashi, T., Kanehori, K., Yosida, M., Watanabe, S., Ishida, S., Ono, Y., Hotuta, T., Hiraoka, S., Murakawa, K., Takiguchi, S., Kusano, J., Watanabe, M., Fujimori, K., Tanai, H., Ishida, M., Yamashita, H., Chiba, Y., Sugiyama, T., Irie, R., Otsuki, T., Sato, H., Wakamatsu, A., Ishii, S., Yamamoto, J., Isono, Y., Kawai-Hio, Y., Wakamatsu, A., Ishikawa, T., Kimura, K., Watsuo, K., Nakamura, Y., Saito, K., Nishikawa, T., Kimura, K., Wagatsuma, M., Takahashi-Fujii, A., Oshima, A., Kikuchi, H., Kanda, K., Wagatsuma, M., Takahashi-Fujii, A., Oshima, A., Sugiyama, A., Kawakami, B., Suzuki, Y., Sugano, S., Nagahari, K., Masuho, Y., Nagai, K. and Isogai, T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2189 bp
Homo Bapiens cDNA FLJ31747 fis,
to RNA-BINDING PROTEIN FWG
AKOGEGOO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sekine, M., Obayasıı, r., Ishii, S., Yamamoto, J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ota,T., Suzuki,Y., Nishikawa,T., Otsuki,T., Sugiyama,T., Irie,R., Wakamatsu,A., Hayashi,K., Sato,H., Nagai,K., Kimura,K., Makita,H., Sekine,M., Obayashi,M., Nishi,T., Shibahara,T., Tanaka,T., Ishii,S., Yamamoto,J., Saito,K., Kawai,Y., Isono,Y., Nakamura,Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   oligo capping; fis (Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    numan cDNAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AK056309.1 GI:16551673
                                                                                                                                                                                                                                                                                                                                                                                                                                         4702039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genet. 36 (1),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               fis (full insert sequence)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        40-45 (2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA linear PRI 30-JAN-2004 clone NT2RI2007377, highly similar
```

777 720

```
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                             358
                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                                                                                                                                                                   121
                                                        421
                                                                                   418
                                                                                                                361
                                                                                                                                                                          301
                                                                                                                                                                                                                                                               256
                                                                                                                                                                                                                                                                                                                                                                                136
481
                           478
                                                                                                                                                                                                       298
                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                      76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HRI, and Bio
Evaluation; (
HRI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACGAGGAGGAGGAGAGAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCA
                     ACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAG
                                                                                                                                 ACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTAT 417
                                                                                                                                                                                         CAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACCCTGCTACAGTCACCACC
                                                                                                                                                                                                                                                                                            CAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCT
                                                                                                                                                                                                                                                                                                             CAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCT
                                                                                                                                                                                                                                                                                                                                                    CAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACC
                                                                                                                                                                                                                                                                                                                                                                     CAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACC
                                                                                                                                                                                                                                                                                                                                                                                                            GCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                GCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACC 135
                                                                                                                                                                                                                                  CCCACTGTAGAAGGGACCAGTACAGGTTATACTACTCCAACTGCCCCCAGGCATACAGC
                                                                                                                                                                                                                                                                 CCCACT
                                                         GGGCAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCCACTGAG
                                                                                     GGGCAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /mol_type="mxxxx"
/db_xref="taxon:9606"
/clone="NTZRIZ007377"
/cell_line="NTZ"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Biotechnology Center, National Institute of Technology and on; clone selection for full insert sequencing: RAB and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /cell_type="teratocarcinoma"
/clone lib="WT2RI2"
/clone lib="WT2RI2"
/note="cloning vector: pME18SFL3~mRNA from NT2 neuronal
precursor cells treated 2-weeks mitotic inhibitor after
precursor retinoic acid (RA) induction.~majorly NT2 neuron"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           note="unnamed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    organism="Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1966; Di
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein product"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens"
                                                                                                                                                                                                                                                    -GGTTATACTACTCCAACTGCCCCCCAGGCATACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 2189;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                 195
                                                                                                                                                                                                       357
                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                       255
                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   75
 540
                           537
                                                        480
                                                                                      477
                                                                                                                   420
                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                               297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                  片
                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ર્
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
               밁
                                  δ
                                                                     밁
                                                                                                 S
                                                                                                                              밁
                                                                                                                                                      S
                                                                                                                                                                                         밁
                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1018
                                                                     1498
                                                                                                                               1438
                                                                                                                                                            1438
                                                                                                                                                                                                                                                   1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                538
                                                                                                                                                                                                                                                                  GAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAG 1377
                                                                                                                                                                                                                                                                                                                                                                                      AAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGA 1257
                                                                                                                                                                                                                                                                                                                                                                                                                                              TTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGA 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGA 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGAT 1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGACGCGGTGGAATGGGCAGCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGGCAGGGGAAGAGAGGGGGATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGACAGGACCACCCCAGTAGCATGGGTGTTTTATGGGCAGGAGTCTGGAGGATTTTTCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TACTCTCAGCAGAACACCTATGGGCAACCCGAGCAGTATGGACAGCAGAGTAGCTATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCT
                                  AACCCCTCTGGAGGAGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCG
                                                                                                                                              CCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATG 1497
                                                                                                                                                                                                          AAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCA 1437
                                                                                                                                                                                                                                                                                                                          AAGATGAACAAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                            TTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATCGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGAGGACGCGGTGGAATGG---GCGCT
               GGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCAGGG
                                                                                                                                                                                           AAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCA
                                                                                                                                                                                                                                                   GAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAG
                                                                                                                                                                                                                                                                                                             CCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATG
                                                                        GGAGGCCGTGGAGG.
                                                                                                                                                                                                                                                                                                                                        1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1017
                                                                                                                                                                                            1437
                                                                                                                                                                                                                                                   1377
                                                                                                                                                                                                                                                                                                              1317
                                                                                                                                                                                                                                                                                                                                                                     1257
                                                                                                                                                                                                                                                                                                                                                                                                                               1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        897
                                             1617
                                                                                                     1557
                                                                                                                                  1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
```

S

밁

Ś

밁 S

S

밁 S 뮍

밁 δ 밁 δ 밁

1617

1557

ð

밁

용

8 8 8 8 8 8 8 8	IGIN Quer Best	AUTHORS TITLE JOURNAL FEATURES	ACCESSION VERSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE	Db RESULT 12 CQ730352 LOCUS LOCUS DEFINITIO			
109 CCCACTCAAGGATATGCAAGCTGCAGCGCAGCAGGGCTACAGCGCCAGGGCCAGGAGGGCTACAGCGCCAGGGCCAGGAGGGCAGCAGCAGCGCCAGGGCCAGGCCCAGGGCAGCA	/organism="Homo sapiens" /organism="Homo sapiens" /mol_type="unassigned DNA" /db_xref="taxon:9606" 97.0%; Score 1964.4; DB 6; Length 2326; imilarity 99.9%; Pred. No. 0; Conservative 0; Mismatches 1; Indels 1; Gaps 1;	Venter, C.J., Adams, M.C., Li, P.W. and Myers, E.W. Kits, such as nucleic acid arrays, comprising a majority of humanexons or transcripts, for detecting expression and other uses thereof Patent: WO 02068579-A 16286 06-SEP-2002; PE Corporation (NY) (US) Location/Qualifiers	CQ730352.1 GI:42303963 CQ730352.1 GI:42303963 Homo sapiens (human) Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.	778 CGTCAGGAGGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA 2025	918 CAGATGGGAGAAGAAGAGGAGGACGTGGAAGACCTGGAAAAATGGATAAAGGCGAGCAC 1977 918 CAGATGGGAAGAAGAAGAAGGACGTGGAAGACCTGGAAAAATGGATAAAGGCGAGCAC 1977 918 CAGATGGGAAGAAGAAGAAGAAGAAGACGTGGAAGAAAATGGATAAAGGCGAGCAC 1977 918 CAGATGGGAAGAAGAAGAAGAAGACGTGGAAGACCTTGAAAAAATGGATAAAGGCGAGCAC 1977 918 CAGATGGGAAGAAGAAGAAGAAGACGTGGAAGAAAAATGGATAAAAGGCGAGCAC 1977	738 CCTGGTGGCATGCGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATG	618 G 618 G 618 G 678 C
B & B & B & B	8 8 8 8	\$\$ \$\$	Q	Q	\$ \$ \$ \$	0	B Q B
1088 GTACAGGATTAAATGACAGTGTGACTCTAGATGATCTCGCCAGACTTCTTTAAGCAGTGT 1147 1189 GGGGTTGTTAAGAATGACAAGAGAACTGGGCAACCCATGACCATCTACCTTGACCAGTGT 1248	1009 GGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCA 1068	889 TTTTCCGGACCAGGAGAACCCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGAAGA 948	769 GGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCA		529 TATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTC 588		289 GCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTATGATACCACCACTGCTACA 348

```
REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 13
AC137500/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                      CEYWORDS
                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1549
                                                                 Submitted (20-NOV-2002) Production Sequencing Genome Institute, 2800 Mitchell Drive, Walnut -----Genome Center
Center: Joint Genome Institute
Center Code: JGI
                                                                                                                                                                                                                                                                                                                                                    AC137500 193559 bp DNA linear HTG 20-NOV-2002 Homo sapiens chromosome 16 clone RP11-343G17, WORKING DRAFT SEQUENCE, 2 unordered pieces.
AC137500 AC137500.1 GI:25139894 HTGS_PHASE1; HTGS_DRAFT; HTGS_ACTIVEFIN.
                                                                                                                                                       2 (bases 1 to 193559)
DOE Joint Genome Institute.
Direct Submission
                                                                                                                                                                                                         Sequencing of Human Chromosome Unpublished
                                                                                                                                                                                                                                                                              Homo sapiens
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                  Project Information
                                                                                                                                                                                                                                               1 (bases 1 to 193559)
DOE Joint Genome Institute.
                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGC 1728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCATGCCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATGGACCGAGGTGGCTTTGGTGGAGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACC 1907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCC 1788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGAAGCAGAGACCCCCGCAGA 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGA 2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAA 196:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCCTGGGGGGCCCCCTGGACC 1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ĠĠŦĠĠĀĀŦĠŦŦĊĀĠĀĠĠŦĠĠĊĊĠŦĠĠŦĠĠĀĠĀĊĀĠĀĠĠŦĠĠĊŦŦĊĊĊĠŦĠĠŦĠĠĊĊĠĠĠĠ 1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT-CCGTGGTGGCCGGGG 1847
                                                     site:
Project Name:
                                                   http://www.jgi.doe.gov
   538238
                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                   16
                                                                                                                          Facility,
Creek, CA
                                                                                                                          DOE Joint
94598, US!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1387
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                    S
                                                            밁
                                                                                               Ś
                                                                                                                                           맑
                                                                                                                                                                        S
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                    뭐
                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 1949; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Consensus quality: 192718 bases at least Q40
Consensus quality: 192915 bases at least Q30
Consensus quality: 193071 bases at least Q30
Consensus quality: 193071 bases at least Q30
Consensus quality: 193071 bases at least Q20
Estimated insert size: 160000, agarose-fp estimation
Bstimated insert size: 193459; sum-of-contigs estimation
Quality coverage: 10.21 in Q20 bases; sum-of-contigs estimation
Quality coverage: 10.21 in Q20 bases; sum-of-contigs estimation.
* NOTE: This is a 'working draft' sequence. It currently
* consists of 2 contigs. The true order of the pieces
* is not known and their order in this sequence record is
* arbitrary. Gaps between the contigs are represented as
* runs of N, but the exact sizes of the gaps are unknown.
* This record will be updated with the finished sequence
* as soon as it is available and the accession number will
* be preserved.
                                                                                                                                                                                                                          30679
                                                                                                                                                                                                                                                                                                         30739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          184
                        544
                                                                                                                                                                                  424
                                                                                                                                                                                                                                                                                                                                                                                                                           244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Center clone name: RPCI-11_343G17
TACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCC
                                                                                                                                                                                                                                                                                                                                                                                                           GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCT 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACAACACCCCAGCCCACTCAAGGATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCCACTCAAGGATAT 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGACGTTGAGAGAACGAGGAGGAGAGAAAATGGCATCCATGGATTACAGTACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGACGTTGAGAGAACGAGGAAGGAAGAAAATGGCGTCCACGGATTACAGTACCTAT
                                                                CAGCCAGCAGCACTGCACCTACAAGACCGCAGGATGGAAAACAAGCCCACTGAGACTAGT
                                                                                                                                                                                                                                                     GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAG
                                                                                                                                                                                                                                                                                                                                            GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCAG 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCAGCTATACCCAGGCTCAGACCACTGCAATCTATGGGCAGACCGCCTATGCAACTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCATTGAT 30860
                                                                                                                                             CAGCCAGTAGCCACTGCACCTACAAGACCGCAGAATGGAAACAAGCCCACTGAGACTAGT
                                                                                                                                                                                                                          GCCTCCTATGCAGCTCAATCTGCATATGGCACTCAGCCTGCTTATCCAGCTTATGGGCAG
                                                                                                                                                                                                                                                                                                         GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 96955; contig of 96955 bp in length
6 97055; gap of unknown length
6 193559; contig of 96504 bp in length.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /chromosome="16"
/clone="RP11-343G17"
/clone_lib="RPCI human BAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   organism="Homo sapiens"

/mol_type="genomic DNA"

/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . .193559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93.1%;
96.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1884.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 193559;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63
                                                                                                                                                                                                                            30620
                                                                                                                                                                                                                                                                    423
                                                                                                                                                                                                                                                                                                           30680
                                                                                                                                                                                                                                                                                                                                                                                        30740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30980
                                                                                                        543
                                                                                                                                                                                       483
                           603
                                                                  30500
                                                                                                                                               30560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N
```

뭐

	1683 29360	1624 GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAA
	1623 29420	1564 TCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGT
	1563 29480	1504 CGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCGAGGGAACCCC
	1503 29540	1444 CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGC
······································	1443 29600	1384 CCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCA
	1383 29660	1324 TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCCGAAGAAGCCT
	1323 29720	1264 AAAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGG
	1263 29780	1204 AACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGGCCC
	1203 29840	1144 GACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG
	1143 29900	1084 CCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAAT
	1083 29960	1024 CGAGGIGGCTTCAATAAGCCTGGIGGACCCATGGATGAAGGACCAGATCTIGATCTAGGC
-	1023 30020	964 GGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCCGGTGGAATGGGCAGCGCTGGAGAG
	963 30080	904 GAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGAAGAGAGGGGGATTTGATCGT
	903 30140	844 GACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGA
	843 30200	784 GCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAG
	783 30260	724 AGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGCCAA
	723	664 CAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAA
	30380	604 TACCCTCCTACCAGCTAITCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCT
.,_	30440	30499 TGCAGTTATCCCCAGGTACCTGGGAGCTACTCCATGCAGCCAGTCACCGCACCTCCATCC

중 유

8 8 8 8 8 8 8 8 8

밁

ş

음 중 음

유

밁

8

ક

δ

음 중 음

ঠ

음 성 음 성

```
TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 14
AC018774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COCUS
                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                              CE 2 (bases 1 to 155815)

RS Birren,B., Linton,L., Nusbaum,C., Lander,E., Abraham,H., Allen,N.,
RS Birren,B., Linton,L., Barna,N., Beckerly,R., Beda,F.,
Anderson,S., Baldwin,J., Barna,N., Beckerly,R., Beda,F.,
Castle,A.,
Boguslavkiy,L., Boukhgalter,B., Brown,A., Burkett,G., Castle,A.,
Choepel,Y., Colangelo,M., Collins,S., Collymore,A., Cooke,P.,
DeArellano,K., Dewar,K., Domino,M., Doyle,M., Fenestor,J.,
Perreira,P., FitzHugh,M., Forrest,C., Gage,D., Galagan,J.,
Gardyna,S., Grant,G., Hagos,B., Heaford,A., Horton,L.,
Howland,J.C., Johnson,R., Jones,C., Kann,L., Karatas,A., Klein,J.,
Gardyna,S., Grant,G., Hagos,B., Heaford,A., Horton,L.,
Howland,J.C., Johnson,R., Jones,C., Kann,L., Karatas,A., Klein,J.,
Gardyna,S., Grant,G., Hagos,B., Heaford,A., Horton,L.,
Howland,J.C., Johnson,R., Jones,C., Kann,L., Karatas,A., Klein,J.,
Howland,J.C., Marquis,N., McEwan,P., McGurk,A., McKernan,K.,
Medonald,P., Marquis,N., McEwan,P., McGurk,A., McKernan,C.H.,
O'Connox,T., O'Donnell,P., Olivar,T.M., Peterson,K., Pierre,N.,
O'Connox,T., O'Donnell,P., Olivar,T.M., Peterson,K., Forein,A.,
Pisani,C., Pollara,V., Raymond,C., Riley,R., Rothman,D., Roy,A.,
Santos,R., Severy,P., Spencer,B., Stange-Thomann,N., Stojanovic,N.,
Santos,R., Severy,P., Spencer,B., Stange-Thomann,N., Stojanovic,N.,
Vassiliev,H., Viel,R., Vo,A., Wu,X., Wyman,D., Ye,W.J., Zimmer,A.
and Zody,M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29061 GAGCGCAGAGATCAGCCCTACTAGATGCAGAGAACCCGCAGA 29020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1684
                                                                                                                                       Submitted (19-DEC-1999) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On Feb 28, 2000 this sequence version replaced gi:6692312. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Butheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 155815)

Birren,B., Linton,L., Nusbaum,C. and Lander,E.

Homo sapiens, clone RP11-20G3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pieces.
AC018774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AC018774.3 GI:7107978 .
HTG; HTGS_PHASE1; HTGS_DRAFT.
Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                  Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGA 2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGGGCCCCTTGGACCTTTGATGGAACAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCCGTGGTGGCCGGGGCATGGACCGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCATGTGGGGAGGAAGAGGTGGCCTCATGGATCATGGTGGTCCCCGGTGGAATGTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCATGCGGGGAGGAGAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGGAATGTTCAGA 1803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCTTCCTCCCGCCACCCTTCCCACCCCCGGGTGGTGATCATGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCTTCCCCGCCACCCTTTCCGCCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAGGAAGAAGAGGAGGACGTGAAGGACCTGGAAAAACGGATAAAGGCGAGCACTGTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTGGTGGAGGAAGACAAGGTGGCCCTGGGGGGCCCCCC-GGACCTTTGATGTAACCAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTGGCTGTGGTAGAGAGAGAGTGGCTTCCGTGGTGG-CTGGGCATGGACCGAGGTGGC
8774 155815 sapiens clone RP11-20G3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         bp DNA linear HTG 16-MAR-2000
WORKING DRAFT SEQUENCE, 3 unordered
                                                                                                           for Genome
                                                                                                                 Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29300
```

```
FEATURES
                                       8
                                                                                        밁
                                                                                                                                  δ
                                                                                                                                                                                    문
                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                    닭
                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 1946; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10354 GGACGTTGAGAGAACGAGGAAGGAAGAAAATGGCATCCATGGATTACAGTACCTAT 10413
10654
                                                                                           10534 GTCAGCTATACCCAGGCTCAGACCACTGCAATCTATGGCAGACCGCCTATGCAACTTCT 10593
                                                                                                                                                                                                                                                                                    10474 GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCATTGAT 10533
                                                                                                                                                                                                                                                                                                                                                                                  10414 AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACAACACCCCAGCCCACTCAAGGATAT 10473
                                                                                                                                                                                                                      184 GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCT 243
                                              304
                                                                                                                      124
                                                                                                                                                                                                                                                                                                                                                                                                                  64 AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATAT 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 GGACGTTGAGAGAACGAGGAAGGAAGGAAGAAAATGGCCGTCCACGGATTACAGTACCTAT 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center project name: L3897
Center clone name: 20 G 3
Sequencing vector: M13; M77815; 100% of reads chemistry: Dye-terminator Big Dye; 100% of read Assembly program: Phrap; version 0.960731
Consensus quality: 150190 bases at least Q40
Consensus quality: 153018 bases at least Q30
Consensus quality: 153018 bases at least Q20
Insert size: 15500; agarose-fp
Insert size: 155015; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NOTE: This is a 'working draft' sequence. It currently consists of 3 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                  GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT 183
                           GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCACCCAG. 363
GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCAG 10713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Quality coverage: 5.1 in Q20 bases; agarose-fp Quality coverage: 5.2 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92.8%; Score 1879.6; ilarity 96.2%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
/mol_type="genomic DNA"
/db xref="taxon:9606"
/clone="RP11-2063"
/clone lib="RPCI-11 Human M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        clone_end:T7
vector_side:right"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   vector_side:left"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   clone_end:SP6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="assembly_fragment" 6153. .23133 /note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           . .155815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6052: contig of 6052 bp in length 6152; gap of 100 bp 23133: contig of 16981 bp in length 23233: gap of 100 bp 155815; contig of 132582 bp in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .155815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Male
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100% of reads
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 2; Length 155815;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of reads
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2; Gaps
```

TGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCA 1443 	TIGGTCTGCCACCO	д <i>Q</i>
ATTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCT 1383 	1324 TITGATGGGAAAGATTITCAAGGGAGCAAACITAA 	Db Qy
ARAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGG 1323	1264 AAAGGCGATGCCACAGTGTCCTATGAAGACCCACC	₽ Q
AACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCC 1263 	204 554	D Qy
GACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG 1203 	144 494	D Qy
CACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAAT 1143 	084 C	D Qy
ATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGC 1083 	1024 CGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGA' 	D Qy
GAGGTGGGCGGGAAGGACGCGGTGGAATGGGCAGCGCTGGAGAG 1023 	964 GGAGGCATGAGCAGAGGTGGGCGGGGAGG 	g Qy
TGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGT 963 	904 GAGAACCGGAGCATGAGTGGCCCTGATAACCGGGG 	B &
CTGGAGGATTTTCCGGACCAGGA 90	844 GACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGT	D Qy
CAACAGAGCAGCAGCTACG TAACAGAGCAGCAGCTACG	4 GCTCCAAGTCAATATAG 4 GCTCCAAGTCAGTATAG	B &
H Si	24 AGCAGCTATGGGCAGCA 74 AGCAGCTATGGGCAGCT	g Q
ATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAA 723 	64 CAGCAGAACACCTATGGGCAAC	gg Qy
CCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCT 663	04 TACCCTCCTA	å å
AGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCC 603	544 TACAGTTATCCCCAGGTACCTGGGAGCTACCCCATV	B 8
CAGCCCAGCCTAGGATA 	8=8	gg Qy
CCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGT 483 CACTGCACCTACAAGACTGCAGAATGGAAACAAGCCCACTGAGACTAGT 10833	424 CAGCCAGCAGCCACTGCACCTACAAGACCGCAGGA?	dg VQ
GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAG 423 	364 GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAC	B &

밁 ঠ 밁 Ś 밁 ठ 밁 ş

S

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AL596087/c
LOCUS
                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
L Submitted (10-MAR-2002) Wellcome Trust Sanger Institute, Hinxton, Cambridgeshire, CB10 1SA, UK. E-mail enquiries:
humquery@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk
On Mar 11, 2002 this sequence version replaced gi:16944185.
During sequence assembly data is compared from overlapping clones.
Where differences are found these are annotated as variations
together with a note of the overlapping clone name. Note that the
variation annotation may not be found in the sequence submission
corresponding to the overlapping clone, as we submit sequences with
only a small overlap as described above.
This sequence was finished as follows unless otherwise noted: all
regions were either double-stranded or sequenced with an alternate
chemistry or covered by high quality data (i.e., phred quality >=
10), an attempt was made to resolve all sequencing problems, such
as compressions and repeats; all regions were covered by at least
one plasmid subclone or more than one M13 subclone; and the
assembly was confirmed by restriction digest. The following
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sequence.
AL596087
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 180718)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human DNA sequence from clone
                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Almeida,J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AL596087.11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 lomo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA 2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGCGCAGAGATCAGCCCTACTAGATGCAGAGAACCCCGCAGA 12373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAG 1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC 1863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGA 1803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGTGGCTGTGGTAGAGACAGAAGTGGCTTCTGTGGTGG-CTGGGCATGGACCGAGGTGGC 12212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCATGTGGGGAAGAGGTGGCCTCATGGATCATGGTGGTCCCGGTGGAATGTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCTTCCTCCCGCCACCCTTCCCACCCCCGGGTGATCATGGCAGAGGTGGCCCTGGT 12093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGATGGCCCTGGT 1743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGANACCAGAACTTCGCCTGGAGAACAGAGAGCAACAAGTGTAAGGCTCCAAAGCCTGAA 12033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAA 1683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCTGGAGGAGGAAACGTCCAGCACCAAGCTGGAGACAGGCAGTGTCCCCAATCCGGGTTGT 11973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCC 1563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGC 1503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTGGTGGAGGAAGACAAGGTGGCCCTGGGGGGCCCCC-GGACCTTTGATGTAACCAATG 12271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATG 1923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTGGAGGAGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGT 1623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GI:19351911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180718 bp DNA linear PRI 10-MAR-200 m clone RP11-9L18 on chromosome 1, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRI 10-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11913
                                                   δ
                                                                                                         밁
                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
          밁
                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 1946;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
          157265
                                                                                                                                                                                                          157385
                                                                                                                                                                                                                                                                                                         157445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           157625
                                                                                                                                                                                                                                                                                                                                                       184
                                                                                                                                                         304
                                                                                                                                                                                                                                                        244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4
          GCCTCCTATGCAGCTCAATCTGCATATGGCACTCAGCCTGCTTATCCAGCTTATGGGCAG 157206
```

밁 Ş 밁 á 밁 Ś 문 Ś 밁 ঠ 밁

```
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      64 AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATAT 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Group. Further information can be found at http://www.sanger.ac.uk/HGP/Chr1 RP11-9118 is from the library RPC1-11.1 constructed Pieter de Jong. For further details see http://www.chori.org/bacpac/home.htm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This sequence is the entire insert of clone RP11-9118 The true left end of clone RP11-479J7 is at 136234 in this sequence. The true right end of clone RP11-375H19 is at 73742 in this sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       http://www.sanger.ac.uk/Projects/C_elegans/wormpep This sequence was generated from part of bacterial clone contigs of human chromosome 1, constructed by the Sanger Centre Chromosome 1 Mapping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SWISSPROT; Tr:, TREMBL; Wp:, WORMPEP; Information database can be found at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             abbreviations are used to associate primary accession numbers given in the feature table with their source databases: Em:, EMBL; Sw:,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VECTOR: pBACe3.6
GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAG
                                                                                                                                                                                                 GGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCATCCATGGATTACAGTACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGACGTTGAGAGAACGAGGAGGAAGGAGAGAGATGGCGTCCACGGATTACAGTACCTAT
                                                                                  GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAG
                                                                                                                    GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAG
                                                                                                                                                                                                                                                                                                                     GTCAGCTATACCCAGGCTCAGACCACTGCAATCTATGGGCAGACCGCCTATGCAACTTCT 157386
                                                                                                                                                                                                                                                                                                                                                                            GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCT 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACAACACCCCAGCCCACTCAAGGATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       complement (32300...23297)

/note="[] Unsure [x] Misc_feature Then select the text
for the note(s) - [] Tandem repeat [] Single clone
region [] Forced join [x] Other Add a comment here -
Sequence from AC011221 and AC018774 sequenced by WIBR."

complement (46397...46442)

/note="Single clone region. Sequence from reads from a
short insert library derived from a single pUC clone.

Restriction digest data confirm the assembly."

complement (102116...102124)

/note="767 bases of IS1 transposon (X52534) removed here.
This sequence represents the duplicated flanking sequence
of the IS1."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="Sequence confirmed sequenced by WIBR."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone_lib="RPCI-11.1"
23201. . 23229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Homo sapiens"
/mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone="RP11-9L18"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mol_type="genomic ער
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chromosome="1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      92.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1879.6;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            by AC011221 and AC018774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DΒ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 180718;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       by the group
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the WORMPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      63
                                                                                                                                                                                                 157326
                                                                                                                                                                                                                                                                                                                                                                                                                                      157446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        157506
                                                                                  157266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            157566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>ب</u>
```

	1503 156126	1444 CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGGACCCATGGGTCGCATGGGAGGC	
	1443 156186	1384 CCAATGAACAGTATGCGGGGTGGTCTGCCACCCGTGAGGGCAGAGGCATGCCACCACCACCA	
	1383 156246	1324 TITGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAGAAGCCT	
	1323 156306	1264 ANAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGG	
	1263 156366	. 1204 AACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCC	•
-	1203 156426	1144 GACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG	
	1143 156486	1084 CCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAAT	
	1083 156546	1024 CGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGC	
	1023 156606	964 GGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAG 	
	963 156666	904 GAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGAGGGGATTTGATCGT 	
	903 156726	844 GACCACCCCAGTAGCATGGGTTTTATGGGCAGGACTCTGGAGGATTTTCCGGACCAGGA	
	843 156786	784 GCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAG	
	783 156846	724 AGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGCCAA	
	723 156906	664 CAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAA	
· · ·	663 156966	604 TACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCT	
*	603 157026	544 TACAGTTATCCCCAGGTÂCCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCC	
	543 157086	484 CAACCTCAATCTAGCACAGGGGGTTACCAACCAGCCCAGCCTAGGATATGGACAGAGTAAC	
	483 157146	424 CAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGT	
-		-	

음 성

음 용

음 성

밁

8 & 8

음 성 음

멍

S

5

밁

S

음 성

음 성

음 성

유 성

В

Ś

밁

Ś

문

Ś

유 성

유

B &	B &	문왕	문 성	P &	P &	P &	B &	당 성
1984 GAGCC 155647 GAGCC	1924 GGAGG 155707 GGAGG	1864 TTTGG 155766 TTTGG	1804 GGTGGC 155825 GGTGGC	1744 GGCA: 155885 GGCA:	1684 GGCTT 155945 GGCTT	1624 GGAAJ 156005 GGAAJ	1564 TCTGG 156065 TCTGG	1504 CGTGG 156125 CGTGG
GAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA 2025	GGAGGAAGAAGAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAG 1983 	TTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATG 1923 	GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC 1863 	GGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGA 1803 	GGCTTCCTCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT 1743	GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAA 1683 	TCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGT 1623	CGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGGTTCCCGAGGGAACCCC 1563

Search completed: February 20, 2005, 11:50:27 Job time: 8507.87 secs

```
Minimum |
Maximum |
                                                                                                                                                                                                                      Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Run
                                                                                                                                                                                                                                                                                                                                                                                                                                     Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OM nucleic -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                        ი
                                                                                                                      ი
                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            92
  100
110
111
113
114
116
117
118
                                                                                                                                                                                                                                                           Pred. No. 18 the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                2023.4
2023.4
2023.4
2023.4
2023.4
2023.4
1986.4
1986.4
1987.6
11879.6
11879.6
11879.6
11879.6
11879.6
11879.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB DB
992
819
819
797.6
758.4
                                                                                                                                                                                                              Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              веq
seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nucleic search, using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length:
 Query
                                                                                                                                                                                                                                                                                                                                                                                                             N_Geneseq_16Dec04:*
1: geneseqn1980s:*
2: geneseqn1990s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    February 20, 2005, 00:31:32 ; Search time 982.09 Seconds (without alignments) 12206.093 Million cell updates/sec
                                                                                                                                                                                                              Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-791-017A-1_COPY_8_2032
2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4390206 seqs, 2959870667 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gacggacgttgagagaacga....agatgcagagaccccgcaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                   geneseqn2003cs:*
geneseqn2003ds:*
geneseqn2004as:*
geneseqn2004bs:*
                                                                                                                                                                                                                                                                                                                                             geneseqn2003bs: *
                                                                                                                                                                                                                                                                                                                                                                        geneseqn2001as:*
geneseqn2001bs:*
geneseqn2002as:*
                                                                                                                                                                                                                                                                                                                                                       geneseqn2003as:*
                                                                                                                                                                                                                                                                                                                                                               geneseqn2002bs:*
                                                                                                                                                                                                                                                                                                                                                                                                       geneseqn2000s: *
                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000000000
 BB
                                                                                                  13
                                                                                                                                         13
                                                                                                                                                 ABK84628
ABK64822
ABN97274
          AAQ50646
AAT97870
AAT97869
ABS73253
                                                                                       ACN37537
AAS62623
                                                                                                                     ACN40903
AAQ50643
AAS62262
                                                                              ABI99383
                                                                                                                                                                                ADQ86032
ADS16277
                                                                                                                                                                                                              ä
                                                ADA53506
ADR07446
ADP56333
                                                                                                            AAS70647
                                                                                                                                                                                                                                                                                                                                                                                                                                                        summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                           SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8780412
                           Aas62262 CDNA sequ
Aas70647 DNA encod
Acn37537 Tumour-as
Aas62623 CDNA sequ
Abi99383 Mouse isc
Ada633506 Human cod
Adr07446 Full leng
Adp56333 Human PRO
Aag50646 Human Ews
Aat97870 CDNA enco
                                                                                                                                               Adq86032 Human tum
Ads16277 Human cDN
Abk84628 Human cDN
Abk64822 Human ben
Abn97274 Gene #377
         Aat97869 cDNA enco
Abs73253 DNA encod
                                                                                                                             Acn40903 Tumour-as
Aaq50643 Human Ews
                                                                                                                                                                                                           Description
Acn37540
Tumour-as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100 m
```

	Ω	O	O	ი	a	ი	ი	ი																
45	44	43	42	41	40	39	38	37	36	3 5	34	ω ω	32	3	30	29	28	27	26	25	24	23	22	21
399.4	411.6	411.6	411.6	411.6	411.6	411.6	411.6	411.6	419.2	424	480.2	488.4	508.4	514.4	514.4	514.4	514.4	514.4	514.4	514.4	514.4	570	653.6	707.4
19.7	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.7	20.9	23.7	24.1	25.1	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	28.1	32.3	34.9
401	505	505	505	505	505	505	505	505	471	454	568	684	550	540	540	540	540	540	540	540	540	2299	1462	845
9	σ	4	4	4	4.	4.	4	4	N	w	9	13	9	σ	4.	4.	4.	4.	4.	4	4	11	4	13
ACH16656	ABS10069	ABS35546	AAK09942	AAK35836	ABA29300	AAI41553	ABA61641	AAI17153	AAV86051	AAC01659 ·	ACH22345	ACN37539	ACH40478	ABS10394	ABS36007	AAK10423	AAK36327	ABA29535	AAI42050	ABA62106	AAI17281	ACN88697	AAL26725	ACN37538
Ach16656 Human adu	Abs10069 Human gen	Abs35546 Human liv	Aak09942 Human bra	Aak35836 Human bon	Aba29300 Probe #77	Aai41553 Probe #10	Aba61641 Human foe	Aai17153 Probe #70	Aav86051 EST clone	Aac01659 Human sec	Ach22345 Human adu	Acn37539 Tumour-as	Ach40478 Human foe	Abs10394 Human gen	Abs36007 Human liv		Aak36327 Human bon	Aba29535 Probe #80			Aai17281 Probe #72	Acn88697 Breast ca	Aal26725 Human bre	Acn37538 Tumour-as

RESULT 1 ADQ86032 Human tumour-associated antigenic target (TAT) cDNA sequence #2904. ADQ86032 standard; cDNA; 2372 22-JUL-2004. WO2004060270-A2 Homo sapiens. human; tumour-associated antigenic target; TAT; cytostatic; gene therapy; cancer; cell proliferative disorder; gene; ss. 07-OCT-2004 ADQ86032; (first entry) ВP

ALIGNMENTS

The present invention describes an isolated tumour-associated antigenic target (TAT) nucleic acid comprising: (a) any of 4622 nucleotide sequences (see SEQ ID NO:1 to 4622); (b) the full-length coding region of (a); (c) the complement of (a) or (b); (d) a sequence that has 80% sequence identity to (a)-(c); or (e) a sequence that hybridises to (a)-(c). Also described: (1) an expression vector comprising the above

nucleic acid; (2) a host cell comprising the above expression vector; (3)

New nucleic acid molecule and encoded polypeptide, f preventing or treating cell proliferative disorders

for diagnosing, s such as cancer.

Claim 1; SEQ ID NO 2904; 5504pp; English.

Wu TD,

Zhou Y;

(GETH) GENENTECH INC. (WUTD/) WU T D. (ZHOU/) ZHOU Y.

WPI; 2004-534300/51.

15-OCT-2003; 2003WO-US029126

18-OCT-2002; 2002US-0418988P

cc comprising: (a) an amino acid sequence encoded by any of the above nucleotide sequences; (b) an amino acid sequence encoded by the full-cc length coding region of the above nucleotide sequences; or (c) a sequence cc comprising the above polypeptide fused to a heterologous polypeptide; (6) an isolated antibody that binds to the above polypeptide; (7) a process cf or producing the antibody; (8) an isolated oligopeptide that binds to the above polypeptide; (7) a process cf binding organic molecule that binds to the above polypeptide; (10) a composition of matter comprising the above (chimeric) polypeptide; (10) a composition of matter comprising the above (chimeric) polypeptide; (10) a composition of matter comprising the above (chimeric) polypeptide; (10) a composition of matter contained within the container; (12) methods of inhibiting the growth of a cell that expresses the above portein, where the growth of the cell is at least in part dependent upon a growth cells that express the above protein; (13) a method of the above protein; (13) a method of cells that express the above protein; (13) a method of the above protein; (14) a method of containing the presence of a protein in a sample suspected of containing the protein cells that express the above protein; (14) a method of containing the protein and (17) a method of treating an antibody, oligopeptide or composition and methods are useful for diagnosing the above cortain; and (17) a method of binding an antibody, oligopeptide or composition and methods are useful for diagnosing, gene characy. The composition and methods are useful for diagnosing, gene characy. The composition are citivity of the above cortains and composition are citivity of preparing cell proliferative disorder or cancer. The present sequence represents a collament for the therapeutic treatment or diagnostic detection of a cell that expresses the protein described above. The composition are citivity of the composition detection of a cell part the composition detection of a cell part the c Query Match Best Local S Matches 2025 atch 100.0%; Score 2025; cal Similarity 100.0%; Pred. No. 0; 2025; Conservative 0; Mismatches 368 308 301 188 481 428 421 361 248 241 181 128 121 488 89 61 μ GACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAAATGGCGTCCACGGATTACAGTACC GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT CAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCA TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT TATGCACAGACCCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT TATAGCCAAGCTGCAGCAGCAGCAGGCCTACAGTGCTTACACCGCCCCAGCCCCACTCAAGGA 120 GACGGACGTTGAGAGAACGAGGAGGAGGAGAGAAAATGGCGTCCACGGATTACAGTACC CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCAGGCATACAGCCAG B₽; 628 A; 589 C; 668 G; 487 T; 0 U; DB 13; Length 2372 0 Indels 0 Other; **0** 300 360 187 67 540 480 420 367 247 240 127 547 487 427 Ś á Ś 밁 맑 S 밁 á 밁 S 밁 S 밁 S 밁 S 밁 S 片 S 밁 밁 맑 吊 밁 S 밁 S 片 S 밁 Ś 문 á 5 1208 1201 1268 1261 1448 1028 548 901 781 721 899 541 AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA CCCTCTGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT 1620 CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGGACCCCATGGGTCGCATGGGA CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAGAAG ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAG GGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA 1140 GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA 1080 CGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGACGCGGTGGAATGGGCAGCGCTGGA GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGAT GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGGAAGAGGGGGGATTTGAT CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCA CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTTCCGGACCA CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA CAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGC TCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAA TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAG AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAG CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCCATGGGTCGCATGGGA

밁

S 문

S

Ş 밁 S δ 밁

밁

1447

1440 1387 1380 1327 1260

1207 1200 1147

1267

1027 1020

960 907 847 840 787 780 727 720 667

밁 S 문 S 밁

S

```
RESULT 2
ADS116277
ID ADS11
XX ADS11
XX ADS1
XX ADS1
XX ADS1
XX ADS1
XX Huma
XX huma
XX huma
XX Hom
XX EP1
XX O4
PR 25
PR 25
XX O4
PR 25
XX D6
PR 25
XX FPT
EPT
XX WE
DR WE
DR PT
XX D6
PT
XX D7
PT
XX D6
PT
XX D7
PT
XX C C T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                     04-MAR-2003; 2003DE-01009280.
25-APR-2003; 2003US-0465692P.
                               Claim 7; SEQ ID NO 1;
                                                                       Determining the hormonal effects of substances, used to identify pharmaceuticals, e.g. for treatment of androgen receptor dysfunction, from modulating interaction between nuclear receptors and Ewing sarce
                                                                                                                                                 WPI; 2004-627861/61
                                                                                                                                                                                                                                                                                 16-FEB-2004; 2004EP-00003422
                                                                                                                                                                                                                                                                                                              08-SEP-2004.
                                                                                                                                                                                                                                                                                                                                         EP1455190-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hypogonadism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-NOV-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADS16277
                                                                                                                                                                                                           (SCHD)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cDNA encoding the Ewing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99;
                                                                                                                                                                                                          SCHERING
                                                                                                                                                                             Į,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA 2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA 2032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGGGAGGAAGAAGAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCTTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGGCCCCCTTGGACCTTTTGATGGAACAG 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGGAATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGTGGCATGCGGGGAAGGAAGAGAGGTGGCCTCATGGATCGTGGTGGTGGTCCCCGGTGGAATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGAGTGGCCCT 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGGGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCTTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGCCCCCTGGACCTTTGATGGAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene;
                                                                                                                                                                             Wolf S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ne; Ewing sarcoma; EWS; prostatic cancer; alopecia; acne; androgen-resistance syndrome; testicular feminisation.
                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                     /product=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDNA; 2390
                              30pp; German
                                                                                                                                                                                                                                                                                                                                                                   "Ewing sarcoma protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sarcoma protein SeqID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВP
                                                                            sarcoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1747
```

This invention relates

to a novel modulators that alter the interaction

S

721

CAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGC

780 727 720 667 660 607 600 547 540 487

787

TCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAA

TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC

TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC

AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA

AACTACAGTTATCCCCCAGGTACCTGGGAGCTACCCCCATGCAGCCAGTCACTGCACCTCCA

AGTCAACCTCAATCTAGCACAGGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT CAGCAGCCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT

AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT

片 S 문 S 문 ð

> 661 809 601 548 541 488 481 428

吊

밁

S 밁 Ś B S S

밁 S 밁

밁

```
88888888888888888888
                                              CC between the Ewing sarcoma protein (EWS) and its nuclear receptor, as well CC as the screening method thereof. Specifically, it refers to determining CC and identifying a hormonal effect brought about by test compounds that CC modulate either the binding of EWS to the nuclear receptor or the ligand-CC nuclear receptors as including osetrogen, progesterone, thyroid hormone, CC vitamin D, and retinoic acid receptors, most preferably they are androgen CC vitamin D. and retinoic acid receptors may be used in the development CC receptors. Accordingly, these modulators may be used in the development CC of pharmaceutical compositions that can diagnose and be used to treat CC diseases associated with receptor dysfunction such as prostatic cancer, CC alopecia, acne, hypogonadism and androgen-resistance syndrome e.g. CC testicular feminisation. This method provides reliable, sensitive, CC simple, inexpensive and rapid assessment of the hormonal effects of these CC test compounds. This polynucleotide sequence is the cDNA encoding the Numan Ewing sarcoma protein of the invention.
```

Query Match
Best Local Similarity
Matches 2025; Conserv Sequence 2390 BP; 646 A; 100.0%; Score 2025; 100.0%; Pred. No. 0; tive 0; Mismatches 589 C; 668 G; 487 띪 .. 13; 0 Ġ 0 Length Other; 2390;

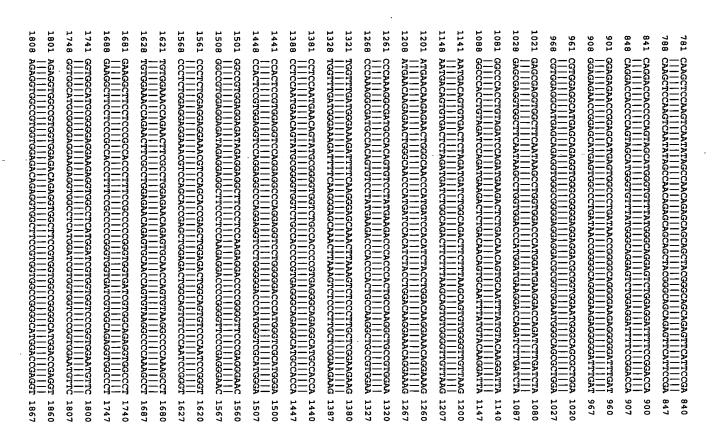
421 368 361 308 301 248 241 188 181 128 121 8 61 CAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTTATCCAGCCTATGGG CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT TATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA TATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCCAGCCCACTCAAGGA GACGGACGTTGAGAGAACGAGGAGGAGGAGAGAAAATGGCGTCCACGGATTACAGTACC CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT GACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACC Conservative <u>.</u> Indels 0; 120 420 360 187 127 67 480 427 367 307 300 247 240 180 0

S

맑 S 닭

S 밁 ঠ

밁 ð 밁



밁 S 밁 á 밁 δ 뭐 5 밁 S

Ś

밁 δ 밁 5 밁 ક

ARRESULT 3
ABXR4628
ADX ABXR6
AXX ABXR6
AXX ABXR6
AXX Hume
AXX Hume
AXX Hume
AXX Home
AXX HOM 밁 S 문 밁 δ S Human; 88; granulocytic cell; DNA chip; bacterial infection; viral infection; parasitic infection; protozoal infection; fungal infection; sterile inflammatory disease; psoriasis; rheumatoid arthritis; glomerulonephritis; aschma; thrombosis cardiac reperfusion injury; renal reperfusion injury; ARDS; adult respiratory distress syndrome; inflammatory bowel dise; crohn's disease; ulcerative colitis; periodontal disease; granulocyte activation; chronic inflammation; allergy. ABK84628 Human 1868 1861 CDNA standard; CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGA ATGGGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT ATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTTGGAAAAATGGATAAAGGCGAGCACCGT GGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGCCCCCTGGACCTTTGATGGAACAG CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA GGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGATGGAACAG differentially expressed in granulocytic cells #1199 (first CDNA; entry) 2390 thrombosis; 2032 2025 1987 1980 1927

WO200228999-A2

11-APR-2002.

03-OCT-2001; 2001WO-US030821

03-OCT-2000; 2000US-0237189P

(GENE-) GENE LOGIC INC

Beazer-Barclay Y, Weissman , MS Yamaga ູດ Ç

Detecting granulocyte activation by detecting differential expression of genes associated with granulocyte activation, which serves as diagnostic markers that is useful for monitoring disease states and drug toxicity.

Claim 1; SEQ ID NO 1199; 114pp; English.

CC (GCA), by detecting the level of expression of gene(s) (GS) identified by CC DNA chip analysis as given in the specification, and comparing the CC expression level to an expression level in an unactivated GC, where CC differential expression of Gs is indicative of GCA. Also included are CC expression of at least one gene in Gs; (2) screening (M3) for an agent CC capable of modulating GCA or an inflammation (especially chronic) in a CC tissue, an allergic response in a subject, exposure of a subject to a CC pathogen or sterile inflammatory disease using the gene expression of cresponse in a subject, exposure of a subject to a CC pathogen or sterile inflammatory disease, by detecting the level of expression in a sample of the tissue of gene(s) from Gs, where the level of expression in a sample of the tissue of gene(s) from Gs, where the level CC inflammatory disease, by contacting the insumation (especially chronic) in a subject to a pathogen or sterile inflammation (especially chronic) in a contacting contacting of the status, an allergic response in a subject to a pathogen or sterile inflammation (especially chronic) in a contacting contacting a subject to a pathogen or sterile contacting contacting a tissue having inflammation with an a subject to a pathogen or sterile contacting a tissue having inflammation with an account of the contacting a tissue having inflammation with an contacting a tissue having inflammation with an account of the contacting a tissue having inflammation with an account of the contacting a tissue having inflammation with an account of the contacting a tissue having inflammation with an account of the contacting a tissue having inflammation with an account of the contacting a tissue having inflammation with an account of the contacting a tissue having inflammation with an account of the contacting a tissue having inflammation with an account of the contacting a tissue having inflammation with an account of the contacting and the contacting and the contacting and the contacting and th invention relates to detecting (M1) granulocyte (GC) C) activation (GB) identified

밁 ð 맑 δ 밁 ঠ 밁 S 8 5 밁 ঠ 밁 ঠ 밁

```
밁
                                                                                                                                     र्
                                                                                                                                                                        밁
                                                                                                                                                                                                 र्
                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                र्
                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                           닭
                                                                                                                                                                                                                                                                                                                                                                                             ş
                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뫉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                               밁
                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CC is useful for detecting GCA; M2 is useful for modulating GA, M3 is useful for screening an agent capable of modulating GCA preferably in an ... CC inflammation in a tissue; M4 is useful for detecting an inflammation. CC (especially chronic) in a tissue, an allergic response in a subject, cC (especially chronic) in a tissue, an allergic response in a subject, government of a subject to a pathogen or sterile inflammatory disease (e.g. psoriasis, rheumatoid arthritis, glomerulonephritis, asthma, thrombosis, cardiac reperfusion injury, renal reperfusion injury, ARDS, adult respiratory distress syndrome, inflammatory bowel disease, Crohn's cdisease, ulcerative colitis, periodontal disease; also bacterial infection, prevalitic infection, protozoal infection, for the infection, prevalitic infection, protozoal infection, tral infection, parasitic infection, protozoal infection, infection, prevalitic infection, gene differentially conditions. The present sequence represents a gene differentially expressed in granulocytes. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in creating the chrombosis of the conditions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 2024; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2390 BP; 645 A; 589 C; 668 G; 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ftp.wipo.int/pub/published_pct_sequences
                                                                                                             608
                                                                                                                                            601
                                                                                                                                                                           548
                                                                                                                                                                                                         541
                                                                                                                                                                                                                                         488
                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                       428
                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                   368
                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                   308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                  721
                                                 899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                               199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        H
CAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGC 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                                                                                                                                          AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                                                         AGTCAACCTCAATCTAGCACAGGGGGGTTACAACCAGCCCAGCCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                                                                                                                 CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                     CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGCCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TATAGCCAAGCTGCAGCGCAGCAGCAGCGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA
                                               TCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAA
                                                                                                                            TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                                                                                                                                          AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                                       AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                                                      CAGCAGCCAGCACCTGCACCTACAAGACCGCAGGATGGAAACAAGCCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                        CAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCAGGCATACAGCCAG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACCGCCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TATAGCCAAGCTGCAGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT
                                                                                                             TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99.9%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 2023.4; pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 2390;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          M3 is useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                          660
                                                 727
                                                                                                             667
                                                                                                                                                                          607
                                                                                                                                                                                                                                     547
                                                                                                                                                                                                                                                                                                    487
                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                   427
                                                                                                                                                                                                                                                                                                                                                                                                                                  367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                          S
밁
                     5
                                                             밁
                                                                                  Ś
                                                                                                                  문
                                                                                                                                                   S
                                                                                                                                                                                       뭐
                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
 1808
                                                                                                                             1688
                                                                                                                                                                                         1628
                                                                                                                                                                                                                                                      1568
                                                                                              1741
                                                                                                                                                           1681
                                                                                                                                                                                                                        1621
                                                                                                                                                                                                                                                                                                                     1508
                                                                                                                                                                                                                                                                                                                                                  1501
                                                                                                                                                                                                                                                                                                                                                                                    1448
                                                                                                                                                                                                                                                                                                                                                                                                                                               1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          728
                  AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCCGGGGCATGGACCGAGGT
                                                                                 GGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTC
                                                                                                                                              GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT
                                                                                                                                                                                                              TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT
                                                                                                                                                                                                                                                                                                                                    GGCCGTGGAGGAGATAGAGGAGGCTTCCCCTCCAAGAGGACCCCCGGGGTTCCCCGAGGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                  CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGA 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTCCAATGAACAGTATGCGGGGTGGTTGCCACCCCGTGAGGGCAGAGGCATGCCACCA 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGTTTGATGGGAAAGATTTTCAAGGGGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGACGCGGTGGAATGGGCAGCGCTGGA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGGAAGAGGGGGGATTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCCGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGC 787
   AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                                                              GGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTC
                                                                                                                            GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT
                                                                                                                                                                                       TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT
                                                                                                                                                                                                                                                                                    CCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                                                                                                                                                                                                                     GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCGAGGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1860
                                                              1807
                                                                                                                                                                                                                      1680
                                                                                                                                                                                                                                                                                    1620
                                                                                                                                                                                                                                                                                                                                                  1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1200
 1867
                                                                                              1800
                                                                                                                          1747
                                                                                                                                                           1740
                                                                                                                                                                                         1687
                                                                                                                                                                                                                                                                                                                                                                                  1507
                                                                                                                                                                                                                                                                                                                                                                                                                                               1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1207
                                                                                                                                                                                                                                                      1627
                                                                                                                                                                                                                                                                                                                     1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840
```

문 δ 밁 S

S

문

```
ARKSULT 2
ARKSUL
CC progression of benign prostatic hyperplasia (BPH), or screening (II) for cridentifying an agent that modulates the onset or progression of BPH. CC The method is based on changes in gene expression in BPH tissue isolated (CC from patients exhibiting different clinical states of prostate collated (CC hyperplasia as compared to normal prostate tissue. (I) comprises (CC detecting the expression levels of one or more genes in prostate cells (CC prostate cells. (II) comprises preparing a first gene expression profile (CC prostate cells. (II) comprises preparing a first gene expression profile (CC agent, preparing a second gene expression profile (CC agent, preparing a second gene expression profile (CC is useful for diagnosing the first and second gene expression profiles. (I) (CC is useful for diagnosing the onset or progression of BPH. (II) is useful (CC is useful for diagnosing the onset or progression of BPH. (CC The methods are useful to present information identifying the expression (CC given in the specification in the tissue or cells to the level of genes (CC expression of gene in the database, and displaying the expression levels (CC expression level in the tissue or cell suppared to the (CC expression level in the tissue or cell suppared to the (CC prostate cancer. ABK64106-ABK64860 represent human benign prostatic (CC hyperplasia gene sequences of the invention)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABK64822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-AUG-2000; 2000US-0223323P
05-JUN-2001; 2001US-00873319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; benign prostatic hyperplasia; BPH; prostate cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human benign prostatic hyperplasia gene #717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Page 399-400; 444pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Identifying drugs for and diagnosing benign prostatic hyperplasia, by detecting expression levels of one or more genes in prostate cells fro patient that are differentially regulated compared to normal prostate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2002-257476/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200212440-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-AUG-2001; 2001WO-US024708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JAPAN TOBACCO INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENE LOGIC INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCTTTGGTGGAGGAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGATGGAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCTTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGGGCCCCCTTGGACCTTTGATGGAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGGAGCGCAGAGCCCCCCCCCACTAGCTGCAGAGCCCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        atgggaggaagaagaaggaggacgtggaggacctggaaaaaatggataaaggcgagcaccgt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kulkarni P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             relates to a method of diagnosing (I) the onset
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Getzenberg RH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Waga I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yamamoto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1980
```

```
á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SS X
                                                          8
                                                                                     밁
                                                                                                        S
                                                                                                                                   밁
                                                                                                                                                          δ
                                                                                                                                                                                     문
                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                    吊
                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                      $
                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                        ş
                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 2024; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
               961
                                                                                                             841
                                                                                                                                     788
                                                                                                                                                                                      728
                                                                                                                                                                                                                                     899
                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                    809
                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                     548
                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                    488
                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                    428
                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                              781
                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                68 TATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT
CGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGA
                                                                                                     CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTTCCGGACCA
                                                                                                                                                                                                              CAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGC
                                                                                                                                                                                                                                                                                                                                                     AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                  AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCAGGCATACAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACGGACGTTGAGAGAACGAGGAGGAAGGAGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2390 BP;
                                                     GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGAT
                                                                                                                                     CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                                                     CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                                                                                     TCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAA
                                                                                                                                                                                                                                                                                                           TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                    AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGCAGCCAGCAGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              645 A; 589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 2023.4;
; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; 668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        띪
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  67
                                                                                                                                       847
                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                               960
                                                                                         907
                                                                                                                900
                                                                                                                                                                                       787
                                                                                                                                                                                                              780
                                                                                                                                                                                                                                        727
                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                       667
                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                      607
                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                     547
                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                     487
                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
```

```
1928
                                                                                                                                 1921
                                                                                                                                                                                                                                                                 1808
                                                                                                                                                                                                                                                                                                            1801
                                                                                                                                                                                                                                                                                                                                                     1748
                                                                                                                                                                                                                                                                                                                                                                                              1741
                                                                                                                                                                                                                                                                                                                                                                                                                                            1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1448
                                                                                                                                                                          1868
                                                                                                                                                                                                                      1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           968
                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAGGCTTCCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGA 1500
                         CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGA 2025
                                                                                                             ATGGGAGGAAGAAGAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT
                                                                                                                                                                                                 GGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAG
                                                                                                                                                                                                                                                                                          AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                                                                                                                                                                   GGTGGCATGCGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTC
                                                                                                                                                                                                                                                                                                                                                                                 GGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTGGTCCCGGTGGAATGTTC 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCGAGGGAAC 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA 1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA 1080
                                                                                                                                                                        GCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAG
                                                                                                                                                                                                                                                               AGAGGTGGCCGTGGTGGAGAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCGAGGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          АТGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCCCTCCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA
                                                                                  atgggaggaagaagaaggacgtggaggacctggaaaaatggataaaggcgagcaccgt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCCGGTGGAATGGGCAGCGCTGGA 1027
2032
                                                                                                                               1980
                                                                                                                                                                                                                                                               1867
                                                                                                                                                                                                                                                                                                                                                   1807
                                                                                                                                                                                                                                                                                                                                                                                                                                       1747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1087
```

13-AUG-2002 ABN97274 standard; DNA; 2390 (first entry) ВP

Gene; liver cancer; ds; hepatocellular carcinoma; hepatotropic; metastatic liver tumour; cytostatic; expression profile; disease st disease progression; drug toxicity; drug efficacy; drug metabolism.

Gene

ដូ

diagnose

liver

cancer.

밁

S 8 ঠ 밁 S 밁

11-APR-2002

02-OCT-2001; 2001WO-US030589

02-OCT-2000; 2000US-0237054P

. . .

(GENE-) GENE LOGIC INC.

Horne Alvares C, Peres-Da-Silva ß Vockley ជួ

Ş 밁 S 밁 S 밁 S

밁

Diagnosing and detecting the progression of liver cancer, hepatocellular carcinoma or metastatic liver tumor in a patient, involves detecting the level of expression of two or more genes in a liver tissue sample.

Claim 1; SEQ ID NO 3772; 298pp; English.

The invention relates to a novel method for diagnosing and detecting the corporession of liver cancer, hepatocellular carcinoma or metastatic liver tumour in a patient, and differentiating metastatic liver cancer from thepatocellular carcinoma in a patient, involving detecting the level of expression of two or more genes represented in ABN93503-ABN97455 in a crisque sample. The method of the invention has hepatotropic, and cytostatic activity. The method is useful for diagnosing and detecting the progression of liver cancer, hepatocellular carcinoma and metastatic liver carcinoma in a patient. The method is useful for identifying expression profiles which serve as useful diagnostic markers as well as markers that can be used to monitor disease states, disease progression, drug toxicity, drug efficacy and drug metabolism. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at fip.wipo.int/pub/published_pct_sequences

Sequence 2390 BP; 645 A; 589 C; 668 G; 488 T; 0 U; 0 Other;

S S Ś 밁 B 밁 Ś Query Match
Best Local Similarity
Matches 2024; Conserva 128 181 121 89 61 GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT TATGCACAGACCCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT TATAGCCAAGCTGCAGCGCAGCAGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA GACGGACGTTGAGAGAACGAGGAGGAGGAGAGAAAATGGCGTCCACGGATTACAGTACC GACGGACGTTGAGAGAACGAGGAGGAGGAGAAAAATGGCGTCCACGGATTACAGTACC Conservative 99.9%; Score 2023.4; ; Pred. No. 0; 0; Mismatches BB 1: 6 Indels Length 2390; 0, Gaps 240 180 187 127 67

RESULT 5

S 밁

241

TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG

247

닭 ð 문 S 밁 S 밁 δ 밁 ક 문 र् 밁 ঠ 밁 ક 밁 S 밁 S

5 밁 8 밁

```
1268
                                                                                                                   1208
                                                                                                                                                                                   1148
                                                                                                                                                                                                                    1141
                                                                                                                                                                                                                                                    1088
                    1321
                                                                                  1261
                                                                                                                                                    1201
                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                      1028
                                                                                                                                                                                                                                                                                                                                                     1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       248
                                                                                                                                                                                                                                                                                                                                                                                      968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                     908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAG
                                                                      ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG
                                                                                                                                                                                                                                                                         GGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTTATGTACAAGGATTA
                                                                                                                                                                                                                                                                                                                                            GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGGAAGAGGGGGGATTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTTGGAGGATTTTTCCGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGCAGCCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG
                                                                                                                                                                                     AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAG
                                                                                                                                                                                                       GGCCCTCCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA
                                                                                                                                                                                                                                                                                                                      GAGCGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAAGGATTTTCCGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCAGCCAGCACCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                                                       CGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGACGCGGTGGAATGGGCAGCGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                                                                                                                 CTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                     . 1020
                                                                                                                   1267
                                                                                                                                                                                     1207
                                                                                                                                                                                                                    1200
                                                                                                                                                                                                                                                    1147
                                                                                                                                                                                                                                                                                     1140
                                                                                                                                                                                                                                                                                                                      1087
                                                                                                                                                                                                                                                                                                                                                                                      1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        307
                                                                                                                                                                                                                                                                                                                                                                                                                                                     967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       427
```

S 밁 ঠ 문 ક 밁 **& & &**

닭 5 밁 ঠ 문 ঠ 문 S 밁

```
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
음 성
                                                  밁
                                                                                S
                                                                                                                   밁
                                                                                                                                         S
                                                                                                                                                                             밁
                                                                                                                                                                                                       S
                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1448
                                                                                                                                                                               1808
                                                                                                                                                                                                             1801
                                                                                                                                                                                                                                         1748
                                                                                                                                                                                                                                                                                                    1688
                                                                                                                                                                                                                                                                                                                                  1681
                                                                                                                                                                                                                                                                                                                                                                1628
                                                                                                                                                                                                                                                                                                                                                                                                                          1568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1441
              CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGA
                                                                                                                                           GGCTTTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGATGGAACAG
                                                                                                                                                                                                       AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                                                                           GGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTC
                                                                                                                                                                                                                                                                                                                     GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTTGGCAGAGGTGGCCCT
                                                                                                                                                                                                                                                                                                                                                                            TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCGAGGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGA
                                                          ATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAAATGGATAAAGGCGAGCACCGT
                                                                          ATGGGAGGAAGAAGAGGACGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT
                                                                                                                                                                                                                                                                                                                                                                TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCCAAAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                          CCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCCAATCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGGACCCCGGGGTTCCCGAGGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCGTGAGGGCAGAGGCATGCCACCA
CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA
                                                                                                                      GGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAG
                                                                                                                                                                                                                                           GGTGGCATGCGGGGAGGAAGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAG 1387
                                                                                                                                                                               GGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                            2025
2032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1567
                                                                                                                                                                                                             1860
                                                                                                                                                                                                                                                                       1800
                                                                                                                                                                                                                                                                                                                                  1740
                                                                                                                                                                                                                                                                                                                                                                                              1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1447
                                                                                                                                                                                                                                           1807
                                                                                                                                                                                                                                                                                                     1747
                                                                                                                                                                                                                                                                                                                                                                 1687
                                                                                                                                                                                                                                                                                                                                                                                                                            1627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1507
                                                                                                                      1927
                                                                                                                                                                               1867
```

ACN40903 standard; CDNA; 2390 ₽₽

18-NOV-2004 (first entry)

Tumour-associated antigenic target (TAT) CDNA DNA269830, SEQ ID NO:5989

Tumour-associated antigenic target; TAT; human; overexpression; c tumour; diagnosis; cell proliferative disorder; breast cancer; colorectal cancer; lung cancer; ovarian cancer; liver cancer; central nervous system cancer; bladder cancer; pancreatic cancer; cervical cancer; melanoma; leukaemia; hybridisation probe; chromosome identification; chromosome mapping; gene mapping; gene therapy; cytostatic; gene; cancer;

WO2004030615 À

δ 밁

S 밁 밁

र् 밁 S 밁 δ 문 S 밁

S

15-APR-2004.

29-SEP-2003; 2003WO-US028547

```
The invention relates to human tumour-associated antigenic target (TAT) CC polypeptides, and their related nucleic acids. The TAT polypeptides are CC overexpressed in cancer tissues compared to normal tissues, and may thus CC serve as effective targets for the diagnosis and treatment of cancer in CC mammals. The invention also relates to nucleic acid and polypeptide sequences at least 80% identical to the TAT nucleic acids and CC polypeptides; expression vectors and host cells comprising a TAT nucleic acids and compositions acids; an antibody specific for a TAT polypeptide; fusion proteins comprising a CC molecule which binds to a TAT polypeptide; fusion proteins comprising a CC diagnosis of cancer in mammals. TAT polypeptides, nucleic acids, antibodies, antagonists, binding molecules and compositions are useful for diagnosing or treating a cell proliferative disorder associated with increased TAT expression, particularly cancers such as breast cancer, colorectal cancer, lung cancer, ovarian cancer, liver cancer, bladder cancer, pancreatic cancer, cervical cancer, cancers of the central nervous system, melanoma and leukaemia. TAT nucleic acids may further be cused as hybridisation probes, in chromosome and gene mapping, in CC chromosome identification and in gene therapy. The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 2024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New tumor-associated antigenic target polypeptides and nucleic acids, useful in preparing a medicament for treating or detecting a proliferative disorder, e.g. breast, lung, colorectal, ovarian or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2004-347921/32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-OCT-2002; 2002US-0414971P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2024;
                        421
                                                          368
                                                                                           361
                                                                                                                                308
                                                                                                                                                                   301
                                                                                                                                                                                                       248
                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                               188
                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                       128
                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                             68
                                                                                                                                                                                                                                                                                                                                                                                                                                                               13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ب
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2390
CAGCAGCCAGCAGCCACCTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT
                                                                                                                                                       CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACCACTGCTACAGTCACCACCACC
                                                                                                                                                                                                                          TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG
                                                                                                                                                                                                                                                                                                  GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACCT
                                                                                                                                                                                                                                                                                                                                                                          TATGCACAGACCCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                TATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAAGCCCAAGGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cancer or tumor
                                                                                 CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                             TATAGCCAAGCTGCAGCGCAGCAGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 5989; 7273pp;
                                                                                                                                                                                                                                                                               GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP; 645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99.9%; Score 2023.4; 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; 589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ĸ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 û
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             668 G; 488 T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             贸
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0 Other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2390;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -
                    480
                                                                                           420
                                                                                                                                                                   360
                                                                                                                                                                                                                                                                             247
                                                                                                                                                                                                                                                                                                                                                                                                                             127
                                                          427
                                                                                                                               367
                                                                                                                                                                                                       307
                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                     187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                              문
 g
                            S
                                                                         밁
                                                                                                    S
                                                                                                                                          밁
                                                                                                                                                                              Ś
                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
   1508
                                                                                                                                                                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                                                                                                                                                                                              1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 428 CAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT
                    GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCAAGGGAAC
                                                                                                  CACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGA
                                                                                                                                                                    CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA
                                                                                                                                                                                                                                                                                                                                                                    GGCCCACCTGTAGATCCAGATGAAGACTCTGACAAGAGTGCAATTTATGTACAAGGATTA 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCGAGGTGGCTTCAATAAGCCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGGAAGAGGGGGGGATTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTCAACCTCAATCTAGCACAGGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT
     GGCCGTGGAGGAGATAGAGGAGGCTTCCCT
                                                                           CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGA
                                                                                                                                                                                                                                              TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAGAAG
                                                                                                                                                                                                                                                                                              AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAG 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGACCCCCAGTAGCATGGGTGTTTTATGGGCAGGAGTCTGGAGGATTTTTCCGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAAAGCAGCTATGGGCAGCCTCCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGC
                                                                                                                                                   CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA
                                                                                                                                                                                                                        TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCCCTCCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGA 1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTCAGCAGAACACCTATGGGCAACCGAGCGAGCTATGGACAGCAGAGTAGCTATGGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                     1560
                                                                                                                                                                                                                                                                                                                                  1320
     1567
                                                                         1507
                                                                                                                                                1447
                                                                                                                                                                                    1440
                                                                                                                                                                                                                      1387
                                                                                                                                                                                                                                                                                              1327
                                                                                                                                                                                                                                                                                                                                                                                                        1260
                                                                                                                                                                                                                                                                                                                                                                                                                                            1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1087
                                                                                                                                                                                                                                                          1380
                                                                                                                                                                                                                                                                                                                                                                      1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
```

ठ

밁 S 밁 δ 밁 S

S 밁 5 밁 र् В ঠ 片

```
RESULT 7
밁
                                                                                                                                                                                                                                                                                                                                                                                                                         र्
                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ş
                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                       र्
                                                                                                                                                                                                                   malignant melanoma; hum-fli-1; primitive peripheral neuroectodermal tumour; human chromosome human chromosome 22; ss.
                                                                                                                 polyA_signal
                                                                                                                                                                                                   Homo
                                                                                                                                                                                                                                                               Human Ews gene clone BF1AC5
                                                                                                                                                                                                                                                                                 25-MAR-2003
26-MAY-1994
                                                                                                                                                                                                                                                                                                                             AAQ50643
Aurias
                                    20-MAY-1992;
                                                     19-MAY-1993;
                                                                      25-NOV-1993
                                                                                                                                   polyA_signal
                                                                                                                                                                                                                                              chromosomal translocation; chimeric;
                                                                                        WO9323549-A2
                 (CNRS ) CNRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1568
                                                                                                                                                                                                                                                                                                                                                                                                             1928
                                                                                                                                                                                                                                                                                                                                                                                                                                               1868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1561
                                                                                                                                                                                                                                                                                                                                                                                           1981
                                                                                                                                                                                                                                                                                                                                                                                                                             1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1861
                                                                                                                                                                                                  sapiens
Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                                                                                                                                                                                             standard;
                                                                                                                                                                                                                                                                                                                                                                                                           ATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAGGTGGCCGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCCAAAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                                                                                                                                                                                                                                           CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                    CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGA 2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT
Delattre
                                                                                                                                                                                                                                                                                (revised)
(first en
                  CENT NAT RECH SCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                92FR-00006123.
                                                     93WO-FR000494
                                                                                                                /*tag=
2331. .
                                                                                                                                   /product= "EWS protein"
/transl_except= pos:1729.
2143. .2148
                                                                                                                                                                      Location/Qualifiers
25. .1995
                                                                                                                                                               /*tag=
                                                                                                                                                                                                                                                                                                                             CDNA;
Ó
                                                                                                                                                                                                                                                                                 entry)
                                                                                                          ]= b
|- 2336
Desmaze
                                                                                                                                                                                                                                                                                                                             2371
                                                                                                                                                                                                                                                                from
ū
                                                                                                                                                                                                                                                               foetal brain cDNA library
 Melot
                                                                                                                                                                                                                                              chimaeric; Ewing
'n
                                                                                                                                              .1731; aa:Val
 Peter
z,
                                                                                                                                                                                                                                              sarcoma;
                                                                                                                                                                                                                                                                                                                                                                           2032
Plougastel
                                                                                                                                                                                                                              11;
                                                                                                                                                                                                                                               Ews
 8
                                                                                                                                                                                                                                              gene;
                                                                                                                                                                                                                                                                                                                                                                                                                               1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1680
                                                                                                                                                                                                                                                                                                                                                                                                              1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1627
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1927
```

8 8 8 8 8 8 8 8 8 8 8 8 8

492 492 480 552 540 612 600 672 660 732 792

780

733 721 673 661 601

613

ACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAAC

541

361 433 421 493 481

GCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTGAGTCAACCTCAA

```
₽.
                                                                                                                                                      ঠ
                                                                                                                                                                                  밁
                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                      S
                                밁
                                                 S
                                                                                 밁
                                                                                                                                 밁
                                                                                                                                                                                                                                  뭐
                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 2012; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                             The probes 22RR3 and 22RR12 were used to screen a human foetal brain library (Stratagene cat.# 936206). The Colone BPIAC5 was identified an sequenced. It represents the entire coding region and 3'-UTR of the Egene. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New nucleic acid of EWS gene and its hybrid(s) - contg. gene sequence involved in chromosomal trans-location, also derived mRNA, probes, fusion proteins etc., for diagnosis and treatment of Ewing sarcoma and melanoma.
                                                                                                                                                                                                                                                                                                                                                                                    Sequence 2371 BP; 639 A; 587 C; 659 G; 486 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Fig 6; 123pp; French.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Thomas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1993-386580/48.
         373
                                 301
                                                         313
                                                                                  241
                                                                                                         253
                                                                                                                                   181
                                                                                                                                                           193
                                                                                                                                                                                    121
                                                                                                                                                                                                           133
                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                          73
                                                                                                                                                                                                                                                                                                  13 GAGAACGAGGAGGAAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ຸດ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAR44555
TATEGCACTEGTECTTATEATACCACCACTECTACAGTCACCACCACCCAGGCCTCCTAT
                                               ACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAG
                                                                                                                                                                                    ACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTAT
                                                                                                                                                                                                  ACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTAT
                                                                                                                                                                                                                                    GCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACC
                                                                                                                                                                                                                                                 GCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACC
                                                                                                                                                                                                                                                                                    GAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCT
                                                                                                                                  ACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zucman
                                                                                                                                                                                                                                                                                                                                     99.3%; Scilarity 100.0%; For Conservative 0;
                                                                                                                                                                                                                                                                                                                                                  Score 2011.4;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                               DВ
                                                                                                                                                                                                                                                                                                                                      1:
                                                                                                                                                                                                                                                                                                                                                              2;
                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                2371;
                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                             192
                                                                                                                                                                                                                                                             132
          432
                                                          372
                                                                                                            312
                                                                                                                                                                                     180
                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                               72
                                    360
                                                                                   300
                                                                                                                                   240
                                                                                                                                                            252
                                                                                                                                                                                                                                                                                                                                       0
```

```
1621
                                                                                                                                                                                                                                                                                                                1633
                                                                                                                                                                                                                                                                                                                                                            1561
                                                                                                                                                                                                                                                                                                                                                                                                         1573
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1441
                                              1813
                                                                                                                                                                                1681
                                                                                                                                                                                                                          1693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1141
  1801
                                                                                          1741
                                                                                                                                    1753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   793
                                                                                                                                                                                                                                                                                                                                                                                    GGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAG 1632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCCGAGGGAACCCCCTCTGGAGGA 1572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGACGA
                                                                                                                 GGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGT
                                                                                                                                                                                                                                                                    AACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCCGAAGAAGACCTCCAATGAAC
                       GGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGA 1872
                                                                                                                                                                              CCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGG
                                                                                                                                                                                                            CCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGG 1752
                                                                                                                                                                                                                                                                                                              AACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTC 1692
                                                                                                                                                                                                                                                                                                                                                          GGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                GATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCCATGGGTCGCATGGGAGGCCGTGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGG 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGGAAAGCCCAAAAGGCGAT 1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGA 1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTG 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTA 1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAAGAGCGAGGTGGC 1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGATCGTGGAGGCATG 972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCCGGACCAGGAGAGAACCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCAGCCCC
GGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGA 1860
                                                                                        GGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCAGAGGTGGGCGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGATCGTGGAGGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTA 1080
                                                                                        1800
                                                                                                                                  1812
                                                                                                                                                                              1740
                                                                                                                                                                                                                                                                                                                                                          1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
```

```
RESULT 8
AAS62262/
ID AAS62262;
XX
AAS62262;
XX
AAS62262;
XX
DE CDNA sequence #49 en
XX
DE CDNA Sequence 2176 BP; 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                              Human secreted protein; hyperproliferative disorder; autoimmune di immune deficiency disorder; blood disorder; inflammatory disorder; infectious disorder; gene therapy; antimicrobial; hepatotropic; immunosuppressive; antirheumatic; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGA 1932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATCGGCCCTACTAGATGCAGAGACCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATCGGCCCTACTAGATGCAGAGACCCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGAGGACGTCGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGA 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     novel human secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1980
```

र्

밁 S 밁 Ś 밁

밁 8 밁 ঠ 밁

New polynucleotides encoding secreted asthma, HIV and Crohn's disease. proteins useful for treating ø

WPI; 2002-010900/01

06-APR-2000; 2000US-0195604P 29-MAR-2001; 2001WO-US010485

GENETICS INST INC

Clark HF, K, Graham

Fechtel JR;

ζ,

Agostino MJ,

Howes

HS,

Resnick

멍

1; Page 100; 391pp; English

The present invention relates to the isolation of novel cDNA sequences CC which encode human secreted proteins. The cDNA sequences have been CC derived from a variety of human tissues. The invention also provides a CC method for producing proteins from these polymucleotide sequences. The proteins are useful for identifying compounds that modulate their CC activity and production, and the cell is also useful for identifying CC compounds that modulate expression of the polymucleotide sequences CC encoding the secreted proteins. The sequences of the invention are useful CC for treating diseases such as hyperproliferative disorders (e.g. cancer), immune deficiency disorders (e.g. severe combined immunodeficiency CC (SCID)), autoimmune disorders (e.g. multiple sclerosis), blood disorders (e.g. thrombocytopaenia), inflammatory disorders (e.g. architis) and CC (e.g. thrombocytopaenia), inflammatory disorders (e.g. architis) and CC the invention are also useful in gene therapy. AAS62214-AAS62838 CC represent the cDNA sequences of the invention that encode for novel human

413 ð 617 ü 563 G; 583 Ŧ, 0 ς, 0 Other;

Query Match Best Local Similarity Matches 1998; Conserv Conservative 98.1%; 99.9%; ; Score 1986.4; ; Pred. No. 0; 0; Mismatches BB ۲, 9 Indels Length 2176; 1; Gaps ۲.

ঠ 밁 र् 밁 र् 뭐 ঠ 밁 Ś 밁 ঠ 밁 ঠ 문 ঠ 문 र् 밁 5 В र् 밁 ð

片

음 성

8 8 8 8

8 8 8 8 8

806 AGAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTG 865	26 ANGGRAGANANTGGCGTCCACGGATTACACTRACCTRATACCCAAGCGCAACTGGCGACACGGGGGGGGGG
BXYIXAXXIIAAR B Q B Q	5
GCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGGAGGACCTTGATGGACACCGTCAGGAGGAAGAAGAAGAAGGAGCACCTTGGATAAAGGCGAGCACCGTCAGGAGCACCGTCAGGAGCACCGTCAGGAGCCCTACT	1162 TGGCGGACTTCTTTAAGCAGTGGAATTCAATGAACAAGAGAACTGGACCAACCCA 1225 1166 TGGCGGACTTCTTTAAGCAGTGGAACTAAAAGAACTGGACAACTGGACCAACCCA 1225 1161 TGGCAGACTTCTTTTAAGCAGTGGGGATAAAACAACAAGAAAACTGGACAACCCAACCCA 1225 1162 TGATCCACATTAACCTGGACAAGGAAACACGAAAGCCCAAAGAAAAACTGGACAACCCA 1225 1126 TGATCCACATTAACCTGGACAAGGAAACACGAAAGCCCAAAGAAAACTGGCAACCCACTGTCCT 1285 1116 ATGAAAACCCACCCACTGCCAAGGCTGCCGTGGAATGGCTTGATGGAAAAAAAA

ঠ

음용

ঠ

ð

음 성

```
밁
                                             S
                                                                                      밁
                                                                                                                र्
                                                                                                                                                    밁
                                                                                                                                                                                      ई
                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                    The invention relates to isolated polynucleotide (I) and polypeptide (II) CC sequences. (I) is useful as hybridisation probes, polymerase chain creaction (PCR) primers, oligomers, and for chromosome and gene mapping, and in recombinant production of (II). The polynucleotides are also used in diagnostics as expressed sequence tags for identifying expressed genes. (I) is useful in gene therapy techniques to restore normal activity of (II) or to treat disease states involving (II). (II) is useful for generating antibodies against it, detecting or quantitating a polypeptide in tissue, as molecular weight markers and as a food considered to the supplement. (II) and its binding partners are useful in medical imaging consists expressing (II). (I) and (II) are useful for treating disorders involving aberrant protein expression or biological activity. The polypeptide and polynucleotide sequences have applications in diagnostics, forensics, gene mapping, identification of mutations cresponsible for genetic disorders or other traits to assess biodiversity and to produce other types of data and products dependent on DNA and canding sequences of the invention. Note: The sequence data for this patent did not appear in the printed specification, but was obtained in electronic format directly from WIPO at the control of 
                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 2015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess biodiversity.
                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-MAR-2000;
23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-MAR-2001; 2001WO-US008631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200175067-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; chromosome mapping; gene mapping; gene therapy; forensic; food supplement; medical imaging; diagnostic; genetic disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (HYSE-) HYSEQ
                                                                                                                                                                                                                                                                                              Local Similarity
nes 2015; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001-639362/73.
DB; ABG06460.
                                                    179
                                                                                     139
                     199
                                                                                                                     122
                                                                                                                                                        79
                                                                                                                                                                                        63
                                                                                                                                                                                                                             19
                                                                                                                                                                                                                                                             w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RT,
                                    CTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAA
                                                                                                                                                                               TAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGC-TTACACCGCCCAGCCCCACTCAAGGAT
                                                                                                                                                                                                                         CGGACGTTGAGAGAACGAGGAAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTA
                                                                                                                                                                                                                                               CGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 6451; 103pp;
                                                                                                          ATGCACAGACCACC---
                                                                                                                                                                                                                                                                                                                                                                    2388
                  CTGATGTCAGCTATACCCAGGCTCAGACCACCTGCAACCTATGGGCAGACCGCCTATGCAA
                                                                                     ATGCACAGACCACCCAGCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Liu
                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-00540217.
2000US-00649167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INC
                                                                                                                                                                                                                                                                                                                                                                    BP; 628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ú
                                                                                                                                                                                                                                                                                                              95.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tang
                                                                                                                                                                                                                                                                                                                                                                   A; 599
                                                                                                          - CAGGCATATGGGCAACAAGCTATGGAACCTATGGACAGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ដ
                                                                                                                                                                                                                                                                                                <u>.</u>
                                                                                                                                                                                                                                                                                                              Score 1942.2;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                 C; 668 G; 493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        English.
                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                 7
                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                 0
U;
                                                                                                                                                                                                                                                                                              œ
•
                                                                                                                                                                                                                                                                                                                              <u>ن</u>
                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                              Length 2388;
                                                                                                                                                                                                                                                                                                                                                                 0 Other;
                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                            Gaps
                                                  238
                                                                                     198
                                                                                                                                                                                        123
                  258
                                                                                                                                                        138
                                                                                                                                                                                                                           78
                                                                                                                                                                                                                                                           62
                                                                                                                                                                                                                                                                                              9
                         밁
                                                           S
                                                                                                     밁
                                                                                                                             S
                                                                                                                                                                      문
                                                                                                                                                                                                       S
                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                              片
                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                           1099
                                                                                                                                                                                                                                                                            1075
                                                                                                                                                                                                                                                                                                                1039
                                                                                                     1219
                                                                                                                                                                                                                                                                                                                                                 1015
                                                                                                                                                                                                                                                                                                                                                                                   979
                                                                                                                                                                                                                                                                                                                                                                                                                     955
                                                                                                                                                                                                                                                                                                                                                                                                                                                    919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 239
GTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGG
                                GTTAAGATGAACAAGAGAACCTGGGCAACCCCATGATCCACATCTACCTGGACAAGGAAACCA
                                                                                                                                                                                        GGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTT
                                                                                                                                                                                                                                                             GATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAA
                                                                                                                                                                                                                                                                                                                                  GCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTT
                                                                                                                                                                                                                                                                                                                                                                                                       TTTGATCGTGGAGGCATGAGCAGAGGTGGGCCGGGGAGGAGGACGCCGGTGGAATGGGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGAGGGGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TACAGCCAAGCTCCAAGTATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCAGCAGCAGAGTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCAACCCCAAACTGGATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGACTAGTCAACCTCAATCTAGCACAGGGGGGTTACAACCAGCCCAGCCTAGGATATGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCT
                                                                                                     GTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACA
                                                                                                                                                                          GGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTT
                                                                                                                                                                                                                                           GATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAA
                                                                                                                                                                                                                                                                                                              GCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTT
                                                                                                                                                                                                                                                                                                                                                                                   TTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGAGGACGCGGTGGAATGGGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGGGCAGCAGCAGCACTTGCCCTACAAGAACCGAGGATTGAAAACAAGCCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGGGCAGCAGCAGCAGCCACTGCACCTACAAGACCGCAGGA-TGGAAACAAGCCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCCTGTCCAGGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCAGGCATACA-GC 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGCCTGTCCA-GGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACC-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACACGC
                                1338
                                                                                                     1278
                                                                                                                                    1254
                                                                                                                                                                                                                                                                                                                                                                                                                  1014
1374
                                                                   1314
                                                                                                                                                                        1218
                                                                                                                                                                                                                                           1158
                                                                                                                                                                                                                                                                            1134
                                                                                                                                                                                                                                                                                                              1098
                                                                                                                                                                                                                                                                                                                                                 1074
                                                                                                                                                                                                                                                                                                                                                                                   1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  774
                                                                                                                                                                                                                                                                                                                                                                                                                                                      978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            378
```

```
RESULT 10
ACN37537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
 문
                                                                                                                                                                                                                                                                                                                                                                                                                           ş
                                                                                                                           Tumour-associated antigenic target; TAT; human; overexpression; continuour; diagnosis; cell proliferative disorder; breast cancer; colorectal cancer; lung cancer; ovarian cancer; liver cancer; central nervous system cancer; bladder cancer; pancreatic cancer; cervical cancer; melanoma; leukaemia; hybridisation probe; chromosome identification; chromosome mapping; gene mapping;
                                                                                                                                                                                                                                                                                                                           ACN37537
                                                                                                                                                                                                                                                                  18-NOV-2004
29-SEP-2003; 2003WO-US028547
                             15-APR-2004
                                                          WO2004030615-A2
                                                                                                                                                                                                                                  Tumour-associated antigenic target (TAT) cDNA DNA323971, SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1339
                                                                                                                                                                                                                                                                                                                                                                                                                             1975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1495
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1555
                                                                                                                                                                                                                                                                                                                                                                                                   1999
                                                                                       варіепв
                                                                                                                 therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGAACCCCTCTGGAGGAAGACGTCCAGCACCGAGCTGGAAGACTGGCAGTGTCCCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAACAGATGGGAGGAGGAAGAAGAGGAGGACGTGGAGGAGCCTGGAAAAAATGGATAAAGGCGAG 1974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGCCTGAAGGCTTCCCTCCCGCCACCCTTTCCGCCCCCCGGGTGGTGATCGTGGCAGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGGGAGGCCGTGGAGAGATAGAGAGGGGCTTCCCTCCAAGAGGGACCCCGGGGTTCCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCACCACTACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                    CACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGA 2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGAGGTGGCTTTGGTGGAGGAGGAGGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCCCTGGTGGCATGCGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCA
                                                                                                                                                                                                                                                                                                                           standard;
                                                                                                                                                                                                                                                                                                                                                                                                   CACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGT
                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                           CDNA;
                                                                                                                                                                                                                                                                                                                           ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                   2049
                                                                                                                                                                                                                                     NO:490.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1398
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1998
```

밁

S 문

S 밁 S 밁 Ś 당 S

GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTTATCCAGCCTATGGGCAG

CAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGÁAACAAGCCCACTGAGACTAGT

483

424 361 364 301 304 241 244 181 184 121 124

GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAG

363

423 360 303

243 180 183 120 123 60

240

GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCT GCACAGACCACCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCATTGAT GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT

GTCAGCTATACCCAGGCTCAGACCACTGCAATCTATGGGCAGACCGCCTATGCAACTTCT

Ś 밁

AGCCAAGCTGCAGCGCAGCAGGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATAT GACGTTGAGAGAACGAGGAAGGAAGAAAATGGCATCCATGGATTACAGTACCTAT GGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTAT

AGCCAAGCTGCAGCAGCAGGGCTACAGTGCTTACAACACCCCAGCCCACTCAAGGATAT

13 64 ۳ 4

S

Matches 1946; Query Match Best Local

Similarity

92.8%;

Score 1879.6; Pred. No. 0; 0; Mismatches

Conservative

0;

Indels

2

Gaps

N

Length 2177; Other,

Sequence 2177 BP;

602 A; 539 C; 605

G; 431 T; 0 U; DB 74; 13;

0

```
The invention relates to human tumour-associated antigenic target (TAT) CC polypeptides, and their related nucleic acids. The TAT polypeptides are coverexpressed in cancer tissues compared to normal tissues, and may thus CC serve as effective targets for the diagnosis and treatment of cancer in C mammals. The invention also relates to nucleic acid and polypeptide commands. The invention also relates to nucleic acid and polypeptide compared to acid; an antibody specific for a TAT polypeptide; acid and polypeptide complete acids and complete acids, an antibody specific for a TAT polypeptide; fusion proteins comprising a cc rat polypeptide; and methods and compositions for the treatment or confidency antisponists, binding molecules and compositions are useful concressed rat expression, particularly cancers such as breast cancer, colorectal cancer, lung cancer, ovarian cancers such as breast cancer, colorectal cancer, parcreatic cancer, cancers such as breast cancer, cancer, pancreatic cancer, cancers of the central cancer, pancreatic cancer, cancer, cancers of the central cancer, pancreatic cancer, cancer, cancers of the central cancer as hybridisation probes, in chromosome and gene mapping, in chromosome identification and in gene therapy. The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New tumor-associated antigenic target polypeptides and nucleic useful in preparing a medicament for treating or detecting a proliferative disorder, e.g. breast, lung, colorectal, ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2004-347921/32.
P-PSDB; ABM80197.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-OCT-2002; 2002US-0414971P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       prostate cancer or tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; SEQ ID NO 490; 7273pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zhang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zhou
```

acids,

```
1321
                                                                                        1384
                                                                                                                                                  1261
                                                                                                                                                                      1264
                                                                                                                                                                                          1201
                                                                                                                                                                                                             1204
                                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                    1144
                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                           1084
                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                  1024
            1504
                                1441
                                                                     1381
                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                      964
                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                               904
                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                     844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                               GACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCGAGGGAACCCC
                                                                                CCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCA
                                                                                                                      TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCT
                                                                                                                                                              AAAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGG
                                                                                                                                                                                                                                                                      GGAGGCATGAGCAGAGGTGGGCGGGGGAGGAGGGACGCCGTGGAATGGGCAGCGCTGGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                      GAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGGCAGGGGAAGAGGGGGATTTGATCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                             GACCACCCCAGTAGCATGGGTTTTATGGGCAGGAGTCTGGAGGATTTTTCCGGACCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TACCCTCCTACCAGCTATTCCTCTACACAGCCAACTAGTTATGATCAGAGCAGTTACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCAGTTATCCCCAGGTACCTGGGAGCTACTCCATGCAGCCAGTCACCGCACCTCCATCC
                                                                                                                                                                                                       AACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCC
                                                                                                                                                                                                                                                                                                               CAAGTTGGC
                                                                                                                                                                                                                                                                                                                                 CGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGC 1083
                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACTAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCAGCTATGGGCAGCAGCACCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGCAGAACACCTATGGGAAACCGAGCAGCTATGGACAGCAGCAGAGTAGCTATGGTCAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGC
                                                                     CCAGTGAACAGTATGCAGGGTGGTATGCCACCCCATGAGGGCAGAGGGATGCCACCACCACCA
                                                                                                           TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCTCTTGCTCGGAAGAGGCCCT
                                                                                                                                                  ANAGGTGATGCCACAGTGTCCTGTGAAGACTCACCTACTGCCAAAGCTGCCGTGGAATGG
                                                                                                                                                                                        AACAAGAACTGAGCAACCCATGATCCACACCTACCTGGACAAGGAAACAAGAAAGCCC
                                                                                                                                                                                                                                                                                                                                                    GGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGATGCGGTGGAATGGGCAGCGCTGGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCTCCAAGTCAGTATAGCTAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCTGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCC
                                                                                                                                                                     1323
                                                                                                                                                                                                                                                    1203
                                                                                                                                                                                                                                                                                                                                                                        1023
          1563
                                                 1503
                                                                     1440
                                                                                        1443
                                                                                                            1380
                                                                                                                              1383
                                                                                                                                                  1320
                                                                                                                                                                                          1260
                                                                                                                                                                                                            1263
                                                                                                                                                                                                                                1200
                                                                                                                                                                                                                                                                                                               1080
                                                                                                                                                                                                                                                                                                                                                    1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                      903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       603
                               1500
                                                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                                                                               963
                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                              RESULT 11
AAS62623/c
 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                               18-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1684
```

유 문 ક 밁 ঠ 밁 S 밁 5 B ঠ 밁 र् 밁 ঠ 맑 ð 밁 S 밁 ঠ 밁

```
1919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1624
                                                                                                                                                                                                                1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1501
                                 GAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGA 2025
                                                                                                                                          GGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAG
                                                                                                                                                                                                              TTTGGTGGAGGAAGACAAGGTGGCCCTGGGGGGCCCCC-GGACCTTTGATGTAACCAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGA 1803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCTTCCTCCCGCCACCCTTTCCCGCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCCAAAGCCTGAA 1683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGTGGAGGAGATAGAGGAGGCCTCCCTCCAAGAGGACCCCCAGGGTTCCCCGAGGGAACACC 1560
                                                                                                                                                                                                                                                  TTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGATGGAACAGATG 1923
                                                                                                                                                                                                                                                                                                                                                                            GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC 1863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAAACCAGAACTTCGCCTGGAGAACAGAGAGCAACAAGTGTAAGGCTCCAAAGCCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTGGAGGAGGAAACGTCCAGCACCAAGCTGGAGACAGGCAGTGTCCCCAATCCGGGTTGT 1620
                                                                                                        GGAGGAAGAAGAGGACGTGAAGGACCTGGAAAAAACGGATAAAGGCGAGCACTGTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCATGTGGGGAAGAAGAGGTGGCCTCATGGATCATGGTGGTCCCGGTGGAATGTTCAGA
2020
                                                                                                                                                           1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1740
                                                                                                        1978
                                                                                                                                                                                                                   1918
                                                                                                                                                                                                                                                                                                                            1859
                                                                                                                                                                                                                                                                                                                                                                                                                                    1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1680
```

AAS62623 standard; cDNA; 2273

14-FEB-2002 (first

cDNA sequence #410 encoding novel human secreted protein.

Human secreted protein; hyperproliferative disorder; autoimmune disorder; immune deficiency disorder; blood disorder; inflammatory disorder; infectious disorder; gene therapy; antimicrobial; hepatotropic; immunosuppressive; antirheumatic; ss. immunosuppressive;

WO200177291-A2

29-MAR-2001; 2001WO-US010485

06-APR-2000; 2000US-0195604P

GENETICS INST INC

Wong GG, Clark HF, Gulukota K, Graham Fechtel JR; ۲ Agostino ξ, Howes SH, Resnick

WPI; 2002-010900/01

New polynucleotides encoding secreted asthma, HIV and Crohn's disease. proteins useful for treating e.g.

Page 291; 391pp; English.

ş 문 र् 밁 र् 밁 र् 밁 8 В S 밁 5

The present invention relates to the isolation of novel cDNA sequences

```
និក្សាស្ត្រស្ត្រស្ត្រស្ត្រស្ត្រស្ត្រស្ត្
                                                                  밁
                                                                                                  S
                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
맑
                      5
                                                                                                                                       밁
                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cc which encode human secreted proteins. The cDNA sequences have been compound from a variety of human tissues. The invention also provides a method for producing proteins from these polymucleotide sequences. The proteins are useful for identifying compounds that modulate their cactivity and production, and the cell is also useful for identifying compounds that modulate expression of the polymucleotide sequences (c.g. immune deficiency disorders (e.g. severe combined immunodeficiency (e.g. thrombocytopaenia), inflammatory disorders (e.g. arthritis) and confectious disorders (e.g. hapatitis). The polymucleotide sequences of the invention are also useful in gene therapy. AAS62214-AAS62838 crepresent the cDNA sequences of the invention that encode for novel human represent the cDNA sequences of the invention that encode for novel human capacity are present the collar sequences of the invention that encode for novel human capacity are present the collar sequences of the invention that encode for novel human capacity are present the collar sequences of the invention that encode for novel human capacity are present the collar sequences of the invention that encode for novel human capacity are present the collar sequences of the invention that encode for novel human capacity are present the collar sequences of the invention that encode for novel human capacity are present the collar sequences of the invention that encode for novel human capacity are provided the collar sequences of the invention that encode for novel human capacity are provided to the collar sequences of the invention that encode for novel human capacity are provided the collar sequences of the invention are provided to th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Sim
Matches 1933;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2268
1548
                                                                    1608
                                                                                                                                         1668
                                                                                                                                                                                                                1728
                                                                                                                                                                                                                                                                                   1788
                                                                                                                                                                                                                                                                                                                                                         1848
                                                                                                                                                                                                                                                                                                                                                                                                                              1908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      155
                                                                                                                                                                          635
                                                                                                                                                                                                                                                                                                                      515
                                                                                                                                                                                                                                                                                                                                                                                            455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             275
                               755
                                                                                                                                                                                                                                                 575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGAGCAGGGTACAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2273 BP; 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         proteins
ACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCA 1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCAGCCTGCTTATCCAGCCTATGGGCAGCAGCAGCAGCCACTGCACCTACAAGACCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCACCACTGCTACAGTCACCACCACCCAGGCCTCTATGCAGCTCAGTCTGCATATGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATA 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCCCAGGCATATGGGCAACAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCCCCCAGGCATATGGGCAACAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGGTGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTG
                      ACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCCAACAGAGCAGCA
                                                                                              ATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCCACTAGTT
                                                                                                                                                                                                                                    AGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACC
                                                                                                                                                                                                                                                                                                                                                                              AGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                CTCAGCCTGCTTATCCAGCCTATGGGCAGCAGCAGCAGCCACTGCACCTACAAGACCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCACCACTGCTACAGTCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTC
                                                                                                                                                                            CGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCT
                                                                                                                                                                                                                                                                                    AGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCCAGGTACCTGGGAGCTACC
                                                                                                                                                                                                                                                                                                                                                           AGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                91.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; 636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1856.6;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        562 G; 598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2209
                                                                    1549
                                                                                                                                           1609
                                                                                                                                                                              694
                                                                                                                                                                                                                1669
                                                                                                                                                                                                                                                   634
                                                                                                                                                                                                                                                                                                                        574
                                                                                                                                                                                                                                                                                                                                                           1789
                                                                                                                                                                                                                                                                                                                                                                                              514
                                                                                                                                                                                                                                                                                                                                                                                                                                1849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94
                                   814
                                                                                                        754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                        S
                                                                                   닭
                                                                                                                     S
                                                                                                                                                          문
                                                                                                                                                                                      δ
                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                닭
                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유 ·정
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1415
                                                    1835
                                                                                                                                                                                                                                                                      1655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              951
                  522
                                                                                                                                                             642
                                                                                                                                                                                                                                                                                                         711
                                                                                                                                                                                                                                                                                                                                                                               771
                                                                                                                                                                                                                                                                                                                                                                                                                                                  831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGT
                                                                                                                                                                                                                                                                                                                                                                            GAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGGGGGACCCATGGGTCGCATGGAGGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTACCTGGACAAGGAAACAGGAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGCAGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGGCAGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGAGTCTGGAGGATTTTCCCGGACCAGGAGAGAACCCGGAGCATGAGTGGCCCTGATAACC
                                                                                       GTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGG 1774
                                                                                                                                                                                                                                                                    GCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGG 1714
                                                                                                                                                                                                                                                                                                         GAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACCCACTGCCAAGGCTGCCGTGGAATGGTTTGTTGGGAAAGATTTTCAAGGGAGCAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACT
                GTGGTGGCCGGGGATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGG
                                                                                                                                                             GTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGAGGAAGAGAGGTGGCCTCATGG
                                                                                                                                                                                                                                    GCAACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCAC
                                                                                                                                                                                                                                                                                                                                            1654
                                                                                                                                                                                                                                                                                                                                                                                                                 1594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             934
                                                       1894
                                                                                                                            1834
                                                                                                                                                               583
                                                                                                                                                                                                                                                                                                                                                                                                                                                      772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      952
```

463

523

643

```
ABI99383
ID ABI99
XX ABI99383
ID ABI99
XX ABI99
XX ABI99
XX ABI99
XX MOUSE
XX ISHIA
XX CLAIM
XX The prote
XX Claim
XX Claim
XX The prote
XX Claim
XX ISHIA
X
                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                 Query Match
Best Local S
Matches 1877
                                                                                                                                                                                   The present invention describes a method for examining ischaemic conditions, comprising measuring the expression levels of particular genes (I) in a test sample or determining the expression profile of a gene group in the sample comprising genes selected from (I). The method is useful for examining the ischaemic condition (e.g. compressive ischaemia, occlusive ischaemia or vasospastic ischaemia) by measuring expression levels of particular genes (ABI99202 to ABI9912, encoding the protein sequences in ABB57020 to ABS57374) or by determining the expression profile of a gene group comprising these genes. The expression levels or expression profiles produced by these genes are used as an indicator when screening for ischaemic condition-improving drugs or therapeutics for ischaemic diseases. ABI99913 and ABI99914 represent primers for a mouse ischaemic condition related sequence, which are used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Examining the ischemic condition (e.g. occlusive ischemia) by measuring expression levels of particular genes defined in the specification or by determining the expression profile of a gene group comprising these
                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ishikawa K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-MAY-2000; 2000JP-00145977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-MAY-2001; 2001WO-JP004192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200188188-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              vasospastic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mouse; ischaemia; compressive ischaemia; occlusive ischaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mouse ischaemic condition related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABI99383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABI99383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (UYNI-) UNIV NIHON SCHOOL JURIDICAL PERSON
                                                               Local Similarity
nes 1877; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2002-034733/04.
DB; ABB57126.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
GACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page 794-799; 2690pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCCCCCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGA 2014
                                                                                                                                                    2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGAGGACGTGGAGGACCTG 1954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ischaemia; ischaemic condition; ischaemic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Asai S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry
                                                                                                                                                  BP; 587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDNA;
                                                                                88.3%;
93.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2025
                                                                                                                                                  A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Takahashi Y,
                                                                                                                                                  551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2188
                                                                   <u>.</u>
                                                                                   Score 1787.2;
Pred. No. 0;
                                                                                                                                                  Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           English.
                                                                                                                                                  638 G; 412
                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cDNA sequence SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nagata
                                                                                                                                                T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŗ,
                                                                 128;
                                                                                                        멂
                                                                                                        6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ishii
                                                                 Indels
                                                                                                                                                  0
                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ID NO:288
                                                                                                                                                  Other,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            disease;
                                                               ω
•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            88.
                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           343
                          6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              403
  밁
                                  S
                                                                                   밁
                                                                                                                      Ś
                                                                                                                                                                 밁
                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
  1098
                                           1081
                                                                                     1038
                                                                                                                            1021
                                                                                                                                                                   981
                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                       921
                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                          861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21
  GGCCTTCCTATAGATCCCGATGAAGACTCTGACAACAGTGCAATTTATGTGCAAGGATTA
                        GGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA
                                                                                   GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA
                                                                                                             GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA
                                                                                                                                                                      CGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGACTGGG---
                                                                                                                                                                                            CGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGACGCGGTGGAATGGGCAGCGCTGGA
                                                                                                                                                                                                                                                                                              GGAGAGAACCGGAGCATGAGTGGCCCCTGATAACCGGGGCAGGGGGAAGAGAGGGGGATTTGAT
                                                                                                                                                                                                                                                                                                                                       CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCA
                                                                                                                                                                                                                                                                                                                                                                               CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGCAGCCAACAGCCACCCCACCCAGACCACAGGATGGTAACAAGCCTGCTGAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCAGCCAGCCAGCCACCTGCAAGACCCGCAGGATGGAAACAAGCCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATGCACAGACCCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT
                                                                                                                                                                                                                                                       GGAGAGAACCGGAGCTTGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAAAGCAGCTATGGGCAGCCTCCTACTAGTTACCCCGCCTCAGACTGGATCCTACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTCAGCAGAACACCTATGGGCAGCCGAGCAGCTATGGACAACAGAGTAGCTATGGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTTATCCTCCTACCAGCTACTCCTCTTCACAGCCGACTAGTTACGATCAGAGCAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACTACAGCTATCCCCAGGTACCTGGGAGCTACCCAATGCAGCCAGTCACCGCACCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTGTGCAGGATATGGCACTGGGGCTTATGACAGCACCACTGCTACAGTCACCACAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTTACGGACAGCCTCCCACTGGTTATAGTACTCCAACTGCCCCCAGGCGTACAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATGTCAGCTATACTCAGGCTCAGACCACTGCCACCTACGGGCAGACTGCATATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TATGCACAGACCACCCAGGCATATGGGCCAACAAGCTATGGAACCTATGGACAGCCTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACGGACGTTGAGAGAACGAGGAGGAGGAGGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCCAACCTCAATCTAGCACAGGGGGTTATAACCAACCCAGCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TATAGTCAAGCTGCAGCCAGCAGGGCTACAGTGCTTACACCGCCCAGCCAACTCAAGGA
                                                                                                                                                                   CGCTGGA
  1157
                                         1140
                                                                                     1097
                                                                                                                          1080
                                                                                                                                                                   1037
                                                                                                                                                                                                             1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   140
                                                                                                                                                                                                                                                       980
                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                       920
                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                        860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
```

```
RESULT 13
ADA53506
ID ADA53
XX
AC ADA53
XX
DT 20-NC
XX
DX
DX
DX
Human
XX
KW Cytos
  Cytostatic;
                                                                                       20-NOV-2003
                                                                                                                                                                            ADA53506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1261
                                                                                                                                                                                                                                                                                                                              1981
                                                                                                                                                                                                                                                                                                                                                                        1938
                                                                                                                                                                                                                                                                                                                                                                                                                   1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1501
                                                                                                                                                                                                                                                                                     1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1561
                                            coding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGAACAAGAGAACTGGACAACCCATGATCCATATCTACCTGGATAAGGAGACAGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATGACAATGTGACTCTGGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTCAAG
                                                                                                                                                                                                                                                                                                                       CAGGAGCGCAGAGATCGGCCCTACTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTC 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGGGCTTCCTCCCGCCACCTTTCCACCTCCGGGTGGTGATCGTGGACGAGGTGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAAGGCTTCCCGCCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCCAAAGCCT 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCTCTGGAGGAGGAAATGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCTCTGGAGGAAGGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCCGTGGAGGACAGAGGGGGCTTCCCTCCAAGAGGCCCCGAGGCTCCAGAGGAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCCGAGGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCACTTCGTGGAGGTCCTGGTGGCCCAGGAGGCCCTGGAGGACCCATGGGTCGCATGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCGTGAGGGCAGAGGCATGCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGTTTGATGGGAAAGATTTTCAAGGAAGCAAACTTAAAGTGTCTCTTTGCCCGGAAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTAAAGGGGACGCCACAGTGTCCTATGAAGATCCACCAACTGCAAAGGCTGCCGTGGAA
                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                     CAGGAACGCAGAGACCGGCCCTACTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                 ATGGGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAG 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTGGCATGCGAGGAGGAGGAGGACTCATGGACCGTGGTGCTGGAGGAATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTGGAAACCAGAACTTCGCTTGGAGAACAGAATGCAACCAGTGTAAGGCCCCTAAGCCC 1697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCTCCAATGAACAGCATGCGGGGAGGCATGCCACCTCGTGAGGGCAGGGGTATGCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>AGAGGTGGCAGAGGTGGAGACAGAGGAGGCTTCCGAGGTGGCCGTGGAATGGACCGAGGT</u>
  Anti-inflammatory; Osteopathic; Neuroprotective; Nootropic;
                                            sequence,
                                                                                       (first
                                                                                                                                                                            CDNA;
                                                                                       entry)
                                            SEO
                                                                                                                                                                          1988
                                            Ħ
                                               1074
                                                                                                                                                                            ВP
                                                                                                                                                                                                                                                                                     2025
                                                                                                                                                                                                                                                                                                                                2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                . 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1200
                                                                                                                                                                                                                                                                                                                                                                             1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SON CCCCCX PROPERTY P
      밁
                                 Ş
                                                                                         밁
                                                                                                                                 S
                                                                                                                                                               밁
                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Isogai T,
Yamamoto (
Seki N, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (REAS-)
                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      146
        421
                                            446
                                                                                           361
                                                                                                                                    386
                                                                                                                                                                              301
                                                                                                                                                                                                                         326
                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                              266
                                                                                                                                                                                                                                                                                                                                                                                                 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    μ
```

5

밁 Ş

S

밁 5 밁 S 밁 S 밁 Ś 밁 δ 문

문

밁 á र् 밁 δ

밁

8 밁 Ş 밁 Ş 밁 S

밁

```
Gene Therapy; human; secretory protein; membrane inflammatory disease; osteoporosis; neurological
sapiens
                                               proteins; cancer;
disease; gene; ss
                                                 88
```

19-MAR-2003

21-MAR-2002; 2002EP-00006586

14-SEP-2001; 2001JP-00328381 24-JAN-2002; 2002US-0350435P HELIX RES f, Sugiyama T,
J, Isono Y,
Yoshikawa T, INST. BIOTECHNOLOGY. Н Otsuki T, Wakamatsu A, Sato H, Hio Y, Otsuka K, Nagai K, Irie Otsuka M, Nagahari K, Masuho Y; æ

Ishii

S

Tamechika

ŗ,

New polynucleotides encoding full-length polypeptides, e.g. secretory and/or membrane proteins, useful for developing medicines for diseases which the gene is involved, or as target molecules for gene therapy. 2003-395539/38. DB; ADA55145. Ħ

Claim 1; SEQ ID NO 1074; 205pp; English.

The present invention relates to novel human secretory or membrane proteins (ADA54072-ADA55710) and their coding sequences (ADA52433-ADA54071). The coding sequences are useful in the gene therapy of diseases caused by abnormalities of the proteins, e.g. cancer, inflammatory diseases, osteoporosis or neurological disease.

Sequence 1988 BP; 519 A; 504 C; 584 G; 381 T; 0 U; 0 Other

Query Match Best Local Similarity Matches 1831; Conserv Conservative 81.6%; 91.5%; Score 1652.4; Pred. No. 0; 0; Mismatches 0 BB 1; 10; Indels 168; Length Gaps 1;

```
CCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                 GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGC
                                                                                                                                                                                                                                               ATACTACTCCAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTG
                                                                                                                                                                                                                                                                                                 CACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT
                                                                                                                                                                                                                                                                                                                                                                           GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGG
S.
                                   CAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGG
                                                                        CTTATGATACCACCACTGCTACAGTCACCACCACGCAGGCCTCCTATGCAGCTCAGTCTG
                                                                                                                                                                                    CTTATGATACCACCACTGCTACAGTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      85
                                                                                                                                                                                                                                                                  325
                                                                                                                                                                                                                                                                                                                                        265
                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                    205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                      505
                                                                           420
                                                                                                                445
                                                                                                                                                     360
                                                                                                                                                                                        385
                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
   422
```

S

뭐 S 밁 S 밁 र् 문 S 유

S

문

```
1466
                                                                                                                                  1213
                                                                                                                                                                                                    1153
                                                                                                                                                                                                                                    1346
                                                                                                                                                                                                                                                                     1093
                                  1526
                                                                   1273
                                                                                                                                                                   1406
                                                                                                                                                                                                                                                                                                    1286
                                                                                                                                                                                                                                                                                                                                       1033
                                                                                                                                                                                                                                                                                                                                                                     1226
                                                                                                                                                                                                                                                                                                                                                                                                                                       1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1106
 1333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        913
                                                                                                                                                                                                                                                                                                                                                                                                        973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     506
                   TCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAAGAACGTCCAGC
                                                                                   CAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCCT
                                                                                                                                GTCTGCCACCCGTGAGGGCAGAGGCATGCCACCACCACCTCCGTGGAGGTCCAGGAGGCC
                                                                                                                                                         GGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG
                                                                                                                                                                                                                                  GGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG
                                                                                                                                                                                                                                                                                            ATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                       TGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATC 1165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGATAACCGGGGCAGGGGAAGAGGGGGGATTTTGATCGTGGAGCATTGAGCAGAGGTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGAGCAGCTACGGGCAGCAGCAGTTCATTCCGGACAGGACCACCCCAGTAGCATGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCCTATGGGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCCAGGTACCTG
TGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTACCAGCTATTCCT
                                                                                                                                                                                                                                                                                                                                     TGAT CCACAT CTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGAGCAGCTATGGACAGCAGGGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                        TGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCTATTCCT
                                                                                                                                                                                                                                                                                                   1345
                                                                                                                                                                                                                                1405
                                                                                                                                                                                                                                                                                                                                                                                                                                       . 1225
1392
                                                                  1332
                                                                                                                                  1272
                                                                                                                                                                1465
                                                                                                                                                                                                   1212
                                                                                                                                                                                                                                                                   1152
                                                                                                                                                                                                                                                                                                                                     1092
                                                                                                                                                                                                                                                                                                                                                                     1285
                                                                                                                                                                                                                                                                                                                                                                                                      1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                565
```

ક

밁 ঠ

맑

Claim 1; SEQ ID NO 952; 2686pp; English

문 S 밁 ક ₽ S 밁 ঠ В S 밁 ঠ 밁 Ş 밁 ş 밁 S 닭 S

```
RESULT 14
ADRO7446
ID ADRO7746
ID ADRO77
XX ADRO77
XX ADRO77
XX ADRO77
XX Gene;
XW G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene; 88; human; oligo-capping method; diagnostic marker; gene therapy osteoporosis; neurological disease; Alzheimer's disease; Parkinson's disease; dementia; short memory; cancer; sense or motor function; emotional reaction; fear response; panic; osteopathic; neuroprotective; nootropic; antiparkinsonian; cytostatic;
                                                                                                                                                                                                                                                                                                     14-FEB-2003;
09-MAY-2003;
                                                New 1995 cDNA, useful
Alzheimer's diseases,
                                                                                                                   WPI; 2004-583265/57
P-PSDB; ADR09402.
                                                                                                                                                                                      Wakamatsu
                                                                                                                                                                                                               Isogai T,
                                                                                                                                                                                                                                                          (REAS-)
                                                                                                                                                                                                                                                                                                                                                                         12-FEB-2004;
                                                                                                                                                                                                                                                                                                                                                                                                                         18-AUG-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EP1447413-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tranquiliser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADR07446 standard; cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                            RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGA 1645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGAGATCGGCCCTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAAGACGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGATGCAGAGACCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCTCATGGATCGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTG
                                                                                                                                                                                    P
                                                                                                                                                                                    Yamamoto
A, Ishii
                                                                                                                                                                                                                                                          ASSOC BIOTECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human
                                                                                                                                                                                                                                                                                                     2003JP-00102207.
2003JP-00131452.
                                                                                                                                                                                                                                                                                                                                                                           2004EP-00003145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cDNA useful
                                                                                                                                                                                    ŝ'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entry)
                                             for treating osteoporosis, neurological diseases, Parkinson's diseases, dementia and various cancer
                                                                                                                                                                                    Nishikawa
Nagai K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          for treating neurological
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ВP
                                                                                                                                                                                      T, 1
                                                                                                                                                                                    Isono
.e R;
                                                                                                                                                                                                          Ķ
                                                                                                                                                                                                            Sugiyama
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rccrccccccacccrrrc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              disease
                                                                                                                                                                                                               Ή
                                                                                                                                                                                                               Otsuki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Seq
                                                  cancers
                                                                                                                                                                                                               Η,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1572
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                        S
                                                                                                                           밁
                                                                                                                                                  र्
                                                                                                                                                                                        밁
                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
 밁
                        ঠ
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This invention relates to novel, isolated full length human cDNA CC molecules and the encoded proteins thereof. Specifically, it refers to CC cDNA clones obtained by an oligo-capping method, where none of these clones are identical to any known human mRNAs. The present invention CC describes an immunoassay to identify agonists and antagonists, as well as CC antibodies, antisense molecules and siRNAs that can all be used to bind to and modulate expression of the cDNA molecules. As such, these collecules are useful for diagnostic markers or therapeutic targets for CC the various diseases or morbid states. In particular, they are useful in CC gene thorapy for treating osteoporosis, neurological disease, Alzheimer's CC disease, Parkinson's disease, dementia, short memory and various cancers, as well as for maintaining equilibrium of sense or motor function, and CC as well as for maintaining equilibrium of sense or motor function, and CC they exhibit osteopathic, neuroprotective, nootropic, antiparkinsonian, CC cyrostatic and tranquillser activities. This polymuclectide is a full CC cyrostatic and colNA sequence of the invention, NOTE: This sequence is not CC given in the sequence listing of the specification but can be obtained on CC CD-ROM from the European Patent Office, Vienna Sub-office.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 1827; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                182
                               661
                                                               521
                                                                                                                            461
                                                                                                                                                         541
                                                                                                                                                                                          401
                                                                                                                                                                                                                                                        341
                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                   296
                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               122
                                                                                             601
                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                     296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2026 BP; 540 A; 513 C; 590 G; 383 T; 0 U; 0 Other;
                                                                                                                         AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                           AGTCAACCTCAATCTAGCACAGGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                          CAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTTATCCAGCCTATGGG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTTATGGACAGCCTCCCACTGGTTATACTACTCCCAACTGCCCCCCAGGCATACAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATAGCCAAGCTGCAGCGCAGCAGGGCTACACAGTGCTTACACCGCCCAGCCCAACTCAAGGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACGGACGTTGAGAAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACC
                     TCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAA 720
                                                                                                                                                                                                                                                        CAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAAACAAGCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                 CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC
                                                                                           TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                                                                                                                                                          AGTCAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80.3%;
                                                                                                                                                                                                                                                                                                                     ---TATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCT 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1625.8;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ВB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels 156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
565
                                                                                                                                                                                          460
                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                               534
                                                                                                                                                                                                                                                        400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N
                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                 ঠ
                                                                          닭
                                                                                                          á
                                                                                                                                          片
                                                                                                                                                                   8
                                                                                                                                                                                                         片
                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                    망
                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1046
                                                                                                                                                                                                                                                                        1346
                                                                                                                                                                                                                                                                                                                                                                      1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721 CAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGC
                                           GGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGGAATGTTC
                                                                            CCCTCTGGAGGAGAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                                                                                                                                                         GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCAAGGGAAC 1560
                                                                                                                                                                                                                                                                                                                                                       CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                         CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAAGAGGCATGCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGTTTGATGGGAAAGATTTTCAAGGGGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGCGAGGTGGCTTCAATAAGCCTTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGACGCGGTGGAATGGGCAGCGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAGAGAACCGGAGGATGAGTGGCCCTGATAACCGGGGCAGGGGGAAGAGGGGGGATTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCAGCAGCAGAGTTCATTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GETGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTC
                                                                                                                                                                         TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT
                                                                                                                                                                                                                                                                          GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAAC
                                                                                                                                                                                                                                                                                                                                        CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGA
                                                                                                                                                                                                                                                                                                                                                                                                     CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA
                                                                                                             1740
                                                                                                                                                                           1680
                                                                                                                                                                                                                                          1620
                                                                                                                                                                                                                                                                                                                                                                                                                                   1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1020
                                                                                                                                                                                                            1465
                                                                                                                                                                                                                                                                          1405
                                                                                                                                                                                                                                                                                                                                         1345
                                                                                                                                                                                                                                                                                                                                                                                                     1285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1045
                                                                                                                                             1525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
```

ঠ 당 ঠ 밁 S 밁 Ş

밁

```
RESULT 15
ADP56333
ID ADP56
XX ADP56
XX IDP56
XX IDP66
XX IDP56
XX IDP66
XX
The present invention describes an isolated PRO nucleic acid (I). Also described: (I) a vector comprising (I); (2) a host cell comprising the vector of (I); (3) a process for producing a PRO polypeptides; (4) an isolated PRO polypeptide; (5) a chimeric molecule comprising the polypeptide of (4) fused to a heterologous amino acid sequence; (6) an antibody which specifically binds to a polypeptide of (4); (7) a composition of matter comprising a polypeptide of (4), an agonist or antagonist of the polypeptide or an antibody that binds to the polypeptide in combination with a carrier; (8) an article of manufacture comprising a container, a label on the container and a composition of matter of (7); (9) a method of treating an immune related disease in a mammal; (10) a method for determining the presence of a PRO polypeptide in a sample suspected of having the polypeptide; (11) a method of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            human; PRO; immune related disease; inflammatory immune response; immune response stimulation; antiallergic; antianaemic; antiarthritic; antiasthmatic; antidiabetic; antiinflammatory; antipsoriatic; antitheumatic; antithyroid; CNS; dermatological; gastrointestinal; haemostatic; hepatotropic; immunostimulant; immunosuppressive; muscular; nephrotropic; neuroprotective; osteopathic; respiratory; vasotropic; nephrotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New PRO polynucleotides and polypeptides, useful in useful in diagnosing and treating an immune related disease, e.g. systemic lupus erythematogus, rheumatoid arthritis, diabetes mellitus or asthma and in stimulating an immune response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-OCT-2002; 2002US-0422472P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-OCT-2003; 2003WO-US034381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO2004039956-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  virucide; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADP56333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2004-376182/35.
DB; ADP56334.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRO cDNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               wu
S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTTTGGTGGAGGAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGAGGTGGCCGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA 1870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGGGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGGGAGGAAGAAGAGGAGGACGTGGAAAAAATGGATAAAAGGCGAGCACCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCTTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGCCCCCTGGACCTTTTGATGGAACAG 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT 1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        님
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Clark
TD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŗ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2309;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cDNA; 1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO:2309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3009pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Į.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Schoenfeld J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Williams
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1705
```

닭

740

799

```
밁
                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       888888888888888
   δ
                                            밁
                                                                   ঠ
                                                                                                           밁
                                                                                                                                      5
                                                                                                                                                                              밁
                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                              맑
                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cc diagnosing an immune related disease or an inflammatory immune response in mammal; (12) a method of identifying a compound that inhibits or minics the activity of or expression of a gene encoding a PRO polypeptide; and (13) a method of stimulating the immune response in a mammal. The PRO sequences have antiallergic, antianemic, antiarthritic, antiriabetic, antiallergic, antianemic, antiarthritic, antiriabetic, antityroid, CNS, dermatological, gastrointestinal, cartirheumatic, antithyroid, CNS, dermatological, gastrointestinal, composition, neuroprotective, osteopathic, respiratory, vasotropic and virucide activities, and can be used in gene therapy. The nucleic acid constitulating an immune response, compositions, kits and methods are useful in diagnosing and treating an immune related disease and in stimulating an immune response. The present sequence represents a human of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Simi
Matches 1787;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
               721
                                                                             661
                                                                                                              620
                                                                                                                                             601
                                                                                                                                                                                560
                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                500
                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                              440
                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                380
                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                  320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
CAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGC
                                                                   TCTCAGCAGAACACCTATGGGCAACCGAGCAGCAGTATGGACAGCAGAGTAGCTATGGTCAA
                                                                                                                                                                                                          AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                                                                   AGTCAACCTCAATCTAGCACAGGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                                                                                   CAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                                                                 CAGGCCTCCTATGCAGCTCAGTCTGCATATGGGACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATGTCAGCTATACCCAGGCTCAGACCAACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT
                                                                                                              TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                                                                                                     TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                                                                                                                                                AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCAGGCATACAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATAGCCAAGCTGCAGCGCAGCAGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                                                                                                                                                                                                                                                                  CAGCAGCCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                                                CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP; 476 A; 497 C; 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   76.9%;
89.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1557.4;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     G; 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 13; Length 1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     219;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
               780
                                            739
                                                                                                              679
                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     79
                                                                                                                                             660
                                                                                                                                                                                619
                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                559
                                                                                                                                                                                                                                                                                                                499
                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                439
                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                  379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     199
```

1920	GGCTTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGGCCCCCTGGACCTTTGATGGAACAG	
1660	GACAGAGTIGGCTTCCGTGGTGGCCGGGCATGGACCGAGG 	1601
) (3 (
1800	GETGGCATGCGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTGCCCGGTGGAATGTTC	1741
1740 1540	GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT	
44	GTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCC	42
68	TGTGGAAACCAGAACTTĆGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT	62
1620 1420	CCCTCTGGAGGAAGAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT	ωσ
1560 1360	GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAAC	1501
1300	TCCGTGGAGGTCCAGGAGGCCCA	1241
1500	CACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCC	1441
1440 1240	8=8	1381 1181
1380 1180	TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAG	1321 1121
1320 1120	CCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCACCGACTGCCAAGGCTGCCGTGGAA	1261 1061
1260 1060	ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG 	00
1200	AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAG	1141 941
1140 940	ATCCAGATGAAGACT	1081
880	GACCCATGGATGAAGGACCAGATCTAGATCTA	849
1080	GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA	1021
848		849
1020	CGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGACGCGGTGGAATGGGCAGCGCTGGA	961
848		849
960	GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGAT	901
848		849
900	CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCA	841
848	CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGA	800
840	TICCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA	781

밁

á 片

밁

S

밁 Ş 밁

S 문 ঠ 밁 Ś

밁 S 5

Db Db	γ	Дb	Q	DЬ
1781	1981	1721	1921	1661
1781 CAGGAGCGCAGAGATCGGCCCTACTAG 1807	1981 CAGGAGCGCAGAGATCGGCCCTACTAG 2007	1721 ATGGGAGGAAGAAGAAGGACGTGGAAGAATGGATAAAAGGCGAGCACCGT 1780	1921 ATGGGAGGAAGAAGAAGAAGACGTGGAAGACCTGGAAAAATGGATAAAGGCGAGCACCCGT 1980	

Search completed: February 20, 2005, 05:30:45 Job time : 997.09 secs

Ş

밁

Ş

밁

皮

Ś

밁 Ş 망 8 음 성

```
Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Searched
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OM nucleic -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Total number of hits satisfying
                                                                                                                                                                                                                                                 ი
     a
                                                                                                                                                                                                                                                                                                                                                                  ĕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9:
                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
               eq
eq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nucleic search,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                           Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Issued_Patents_NA:*
1. /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
2. /cgn2_6/ptodata/1/ina/5B_COMB.seq:*
3. /cgn2_6/ptodata/1/ina/6A_COMB.seq:*
4. /cgn2_6/ptodata/1/ina/6B_COMB.seq:*
5. /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
6. /cgn2_6/ptodata/1/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IDENTITY_NUC Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                February 20, 2005, 04:13:53; Search time 335.821 Seconds (without alignments) 9866.749 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                  Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 gacggacgttgagagaacga.....agatgcagagaccccgcaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-791-017A-1_COPY_8_2032
2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1202784 seqs, 818138359 residues
                                                                                                                                              99.3
76.8
776.8
776.8
776.8
776.8
776.8
776.8
776.8
776.8
776.8
776.8
776.8
776.8
776.8
776.8
776.8
                                                                                          6.77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Copyright
                                                                                                                                                                                                                                                                                                                                                               Length
                              GenCore version (c) 1993 - 2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    using
                                                                                                                                                                                                                                                                                                                                                                  멂
                 US-08-437-027-18
US-09-513-999C-1657
US-09-521-976-13361
US-09-521-976-13361
US-09-513-999C-12062
US-09-513-999C-12062
US-09-949-016-16786
US-09-949-016-176641
US-09-949-016-176637
US-09-949-016-176637
US-09-949-016-176631
US-09-949-016-176661
US-09-949-016-176661
US-09-949-016-176661
US-09-949-016-176662
US-09-949-016-176663
US-09-949-016-176663
US-09-949-016-176663
US-09-949-016-1766645
US-09-949-016-176645
US-09-949-016-176645
US-09-949-016-176645
US-09-949-016-176645
US-09-949-016-176645
US-09-949-016-176645
US-09-949-016-176645
US-09-949-016-176645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           chosen parameters:
                                                                                                                                                                                                                                                                                     US-09-949-016-5044
US-09-949-016-1954
                                                                                                                                                                                                                                                                                                             US-08-343-443B-1
US-09-949-016-13696
US-09-949-016-5043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8€
                                                                                                                                                                                                                                                                                                                                                                                                      SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2405568
                                                                                                                                                                             Sequence 1, Appli
Sequence 5043, Ap
Sequence 5044, Ap
Sequence 5044, Ap
Sequence 1954, Ap
Sequence 1657, Ap
Sequence 66382, A
Sequence 1062, A
Sequence 1062, A
Sequence 10785, A
Sequence 16785, A
Sequence 16785, A
                                                                             Sequence
Sequence
                                                                                                     Sequence
Sequence
Sequence
                                                                                                                                          Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                              Description
                                                   Sequence
Sequence
                           Sequence
                                                                                                                                                                   Sequence
               145, App
145, App
                                                   176623,
                                                                             176622,
                                                                                          176661,
                                                                                                                                                                     176641,
                                                                                                                                                       6664,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 1
US-08-343-443B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1, Application Patent No. 5968734
GENERAL INFORMATION:
                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/FR93/0049
FILING DATE: 19-MAY-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: FR 92/06123
FILING DATE: 20-MAY-1992
ATTORNEY/AGENT INFORMATION:
               TELEFAX: 215-875-8394
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                 ZIP: 19102
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: AEDIT 1.0 DOS text editor
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                      TELEPHONE: 215-875-8383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                               NAME: Weiser, Gerard J.
REGISTRATION NUMBER: 19,763
REFERENCE/DOCKET NUMBER: 98
                                                                                                                                                                                           APPLICATION NUMBER: US/08/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                              19102
                                                                                                                                                                                                                                                                                                                                       PA
                                                                                                                                                                                                                                                                                                                          USA
```

28 70.2 3.5 215 4 US-09-513-1995-31510 Sequence 31510, A 29 67 3.3 152132 4 US-09-949-016-13845 Sequence 13845, A 30 67 3.3 152145 4 US-09-949-016-12371 Sequence 12371, A 31 66.4 3.3 311 4 US-09-313-294A-5928 Sequence 12371, A 31 66.6 3.2 7218 1 US-09-313-294A-5928 Sequence 176640, Appl 32 65.6 3.2 7218 1 US-09-949-016-176640 Sequence 176640, Appl 33 64.6 3.2 601 4 US-09-949-016-176663 Sequence 1766640, Appl 34 64.6 3.2 601 4 US-09-949-016-176663 Sequence 176663, Appl 35 60 3.0 268 1 US-09-949-016-12052 Sequence 19, Appl 36 59.8 3.0 1505 1 US-09-915-244-1 Sequence 19, Appl 37 59 2.9 1225 4 US-09-949-016-13765 Sequence 416, Appl 38 58.8 2.9 3223 4 US-09-949-016-13765 Sequence 12052, A 39 58.8 2.9 128470 4 US-09-949-016-13765 Sequence 12052, A 40 58.4 2.9 425 2 US-08-343-443B-45 Sequence 45, Appl 41 58 2.9 328 2 US-08-343-443B-5 Sequence 5, Appli 42 57.8 2.9 12695 4 US-09-949-016-16775 Sequence 25, Appli 43 57.2 2.8 1682 4 US-09-919-039-323 45 57 2.8 1684 4 US-09-219-039-323 58 Sequence 23, Appl 45 57 2.8 1684 4 US-09-249-585A-4 Sequence 323, Appl
2 3.5 215 4 US-09-513-999C-31510 Sequence 2 3.3 152132 4 US-09-949-016-12371 Sequence 2 3.3 152145 4 US-09-949-016-12371 Sequence 2 3.3 311 4 US-09-313-294A-5928 Sequence 3 3 311 4 US-09-313-294A-5928 Sequence 3 3 2 7218 1 US-08-232-463-14 3 2 7218 1 US-08-232-463-14 5 2 601 4 US-09-949-016-176663 Sequence 6 3.2 601 4 US-09-949-016-176663 Sequence 6 3.2 601 4 US-09-949-016-176663 Sequence 7 2 2 128 1 US-08-437-027-19 Sequence 8 3.0 268 1 US-08-246-16 Sequence 9 2.9 12854 US-09-916-594-416 Sequence 9 2.9 12854 US-09-949-016-12052 Sequence 8 2.9 34230 4 US-09-949-016-13765 Sequence 8 2.9 34230 4 US-09-949-016-13765 Sequence 8 2.9 128470 4 US-09-949-016-13765 Sequence 8 2.9 128470 4 US-09-949-016-16775 Sequence 8 2.9 12869 4 US-09-949-016-16775 Sequence 9 2.8 1682 4 US-09-919-039-323 Sequence 2 2.8 1684 4 US-09-919-039-323 Sequence 2 2.8 1684 4 US-09-919-039-323 Sequence 9 2 2 128470 Sequence 9 2 12849 US-09-919-039-323 Sequence 9 2 12859 4 US-09-9249-585A-4 Sequence 9 2 12869 3 US-09-249-585A-4 Sequence
3152134 US-09-513-'999C-31510 Sequence 3152145 US-09-949-016-13845 Sequence 3152145 US-09-949-016-12371 Sequence 3152145 US-09-949-016-12371 Sequence 217218 US-09-313-294A-5928 Sequence 227218 US-09-232-463-14 Sequence 237218 US-09-232-463-14 Sequence 2480 US-09-949-016-176663 Sequence 2580 US-09-949-016-176663 Sequence 2680 US-09-949-016-176663 Sequence 2780 US-09-949-016-17665 Sequence 2780 US-09-949-016-1765 Sequence 2780 US-09-949-016-1765 Sequence 2780 US-09-949-016-1765 Sequence 2780 US-09-949-016-1765 Sequence 2780 US-09-949-016-18775 Sequence 2780 US-09-949-016-18775 Sequence 2780 US-09-949-013-879 Sequence 2780 US-09-919-039-323 Sequence 2780 US-09-919-039-323 Sequence 2880 US-09-919-039-33
4 US-09-513-99C-31510 Sequence US-09-949-016-13845 Sequence US-09-949-016-12371 Sequence US-09-313-294A-5928 Sequence US-08-232-463-14 Sequence US-08-232-463-14 Sequence US-09-949-016-176663 Sequence US-09-949-016-176663 Sequence US-09-949-016-12052 Sequence US-09-949-016-12052 Sequence US-09-949-016-12052 Sequence US-09-949-016-12765 Sequence US-09-949-016-13765 Sequence US-08-343-443B-45 Sequence US-09-249-016-16-16-16-16-16-16-16-16-16-16-16-16-1
4 US-09-513-999C-31510 Sequence 4 US-09-949-016-13845 Sequence 4 US-09-949-016-12371 Sequence 4 US-09-949-016-12371 Sequence 5 US-09-343-294A-5928 Sequence 6 US-09-949-016-176640 Sequence 7 US-09-949-016-176663 Sequence 8 US-09-949-016-12052 Sequence 1 US-09-949-016-12052 Sequence 1 US-09-949-016-13765 Sequence 1 US-09-949-016-13765 Sequence 2 US-09-949-016-13765 Sequence 2 US-09-949-016-13765 Sequence 3 US-09-949-016-16775 Sequence 4 US-09-949-016-16775 Sequence 5 US-09-949-016-16775 Sequence 6 US-09-949-016-3733 Sequence 7 US-09-919-039-333 Sequence 8 US-09-249-585A-4 Sequence
5510 Sequence 45 Sequence 71 Sequence 28 Sequence 640 Sequence 663 Sequence 663 Sequence 52 Sequence 52 Sequence 52 Sequence 52 Sequence 52 Sequence 53 Sequence 54 Sequence 55 Sequence 56 Sequence 57 Sequence 58 Sequence 59 Sequence
110, A 1410, A 1410, A 171, A

ALIGNMENTS

APPLICANT: ZUCMAN, JEBSICA TITLE OF INVENTION: NUCLEIC ACID CORRESPONDING TO A GENE OF TITLE OF INVENTION: CHOMOSOME 22 INVOLVED IN RECURRENT CHROMOSOMAL TITLE OF INVENTION: TRANSLATIONS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS TITLE OF INVENTION: TUMORS, AND NUCLEIC ACIDS OF FUSION RESULTING FROM SAID TITLE OF INVENTION: TRANSLOCATIONS NUMBER OF SEQUENCES: 129 CORRESPONDENCE ADDRESS: ADDRESSEE: Weiser & Associates STREET: 230 South Fifteenth Street CITY: Philadelphia Application US/08343443B Ploougastel, Beatrice Thomas, Gilles Melot, Thomas Delattre, Olivier Desmaze, Chantal Peter, Martine Aurias, Alain

PCT/FR93/00494

989.6121P

Oy 853 AGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAGACCGG 912	Oy 793 CAATATAGCCAACAGAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCC 852	QY 733 GGGCAGCAGCCTACCTAGTTACCCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGT 792	673 ACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTAT 7	613 ACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAAC	553 CCCCAGGTACCTGGGAGCTACCCCATGCAGCAGTCACTGCACCTCCATCCTACCCTCCT	493 TCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTAT	Qy 433 GCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAAACCTCAA 492	373 G 361 G	313 TATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACGCCCAGGCCTCCTAT	253 CC 241 CC	193 ACCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAG	133 ACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTAT	73 GCAGCGCAGGAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACC	Qy 13 GAGAACGAAGGAAGGAAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCT 72	Query Match 99.3%; Score 2011.4; DB 2; Length 2371; Best Local Similarity 100.0%; Pred. No. 0; Matches 2012; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	PEATURE: CDS	LENGTH: 2371 base pairs TYPE: nucleic acid STRANDEDNESS: double
Db 1921 AGAGGAGGTGGAGGACCTGGAAAATGGATAAAGGCGAGCACCTCAGGAGCGCAGA 1980 Oy 1993 GATCGGCCCTACTAGATGCAGAGACCCCGCAGA 2025		1813 1801 1873	3 GAAGGAAGATGGTCGCCTCATGGATCCTGGTGGTCCCCGGTGGAATGTTCAGAGGTCGCCGT 	3 CCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGG		QY 1573 GGANACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGANACCAG 1632	13 GATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGAAACCCCTCTGGAGGA 	1453 GGTCCAGGAGGCCAGGAGGTCCTGGGGGGACCCCATGGGTCGCATGGGAGGCCCTGGAGGAGGCCGTGGAGGAGGCCGTGGAGGAGGCCGTGGAGGAGGCCGTGGAGGAGGCCGAGGAGGCCGTGGAGGACCCATGGGTCGCATGGATCGAGGAGGCCGTGGAGGAGGCCCTTGGAGGAACCCATGGGTCGCATGGAGGAGGCCGTGGAAGA	3 AGTATGCGGGGTGGTCTGCCACCCCGTGAGGCCACAGCCATGCCACCCAC		3 GCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGG			3 GATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGATTAAAATGACAGTGTG 	1033 TTCARTMAGCCTGGTGGACCCATGGATGACCCAGATCTTGATCTAGGCCCACCTGATCTTGATCTAGGCCTGCTGATCTTGATCTAGGCCTGCTGTAGACCAATGATGAAGAACCAAGATCTTGATCTAGGCCCTCCTGTA	973 961	QY 913 AGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATG 972

```
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHLEMS IN KNOWN GENES ASS
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOPTWARE: FRASESEQ for Windows Version 4.0
SEQ ID NO 13696
LENGTH: 6002
                                                                                                                      밁
                                                                                                                                                   5
                                                                                                                                                                                    밁
                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                 र्
                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                밁
                                  र्
                                                                     문
                                                                                        ર્શ
                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 2
US-09-949-016-13696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-13696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 93.1%;
Best Local Similarity 96.4%;
Matches 1949; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 13696, Application Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craic
                                                                                                                             2421
                                                                                                                                                                                     2361
                                                                                                                                                                                                                                            2301
                                                                                                                                                                                                                                                                                                    2241
                                                                                                                                                                                                                                                                                                                                                           2181
                                                                                                                                                                                                                                                                                                                                                                                                                  2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1981
                2541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001
                                                                                                                                                                                                                364
                                            544
                                                                                                 484
                                                                                                                                                         424
                                                                                                                                                                                                                                                                       304
                                                                                                                                                                                                                                                                                                                              244
                                                                                                                                                                                                                                                                                                                                                                                      184
                                                                                                                                                                                                                                                                                                                                                                                                                                              124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Α.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAGCCCAAGGATAT 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGACGTTGAGAGAACGAGGAGGAAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                 GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCATCCATGGATTACAGTACCTAT
                               TACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCC
                                                                                       CAGCCAGTAGCCACTGCACCTACAAGACCGCAGAATGGAAACAAGCCCACTGAGACTAGT
                                                                                                                                                CAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAAACAAGCCCCACTGAGACTAGT
                                                                                                                                                                                                   GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCCTATGGGCAG 423
                                                                                                                                                                                                                                                         GTCAGCTATACCCAGGCTCAGACCACTGCAATCTATGGGCAGACCGCCTATGCAACTTCT
                                                                                                                                                                                                                                                                                                                                                                        GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCT 243
                                                                                                                                                                                                                                                                                                                                                                                                                  GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCATTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATCGGCCCTACTAGATGCAGAGACCCCGCAGA
                TGCAGTTATCCCCAGGTACCTGGGAGCTACTCCATGCAGCCAGTCACCGCACCTCCATCC
                                                                      US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1884.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ASSOCIATED
OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>ب</u>
                2600
                                            603
                                                                     2540
                                                                                                                             2480
                                                                                                                                                         483
                                                                                                                                                                                    2420
                                                                                                                                                                                                                                           2360
                                                                                                                                                                                                                                                                                                   2300
                                                                                                                                                                                                                                                                                                                              303
                                                                                                                                                                                                                                                                                                                                                           2240
                                                                                                                                                                                                                                                                                                                                                                                                                  2180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63
δ
                      밁
                                                  δ
                                                                                 밁
                                                                                                      S
                                                                                                                                      밁
                                                                                                                                                               δ
                                                                                                                                                                                        밁
                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                    1384
                                                                                                                                                                                                                                                                                                                                                                        3261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    604
GGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCCAGAGGTGGCCCTGGT 1743
                          GACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG
                                                                                                   TCTGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGT
                                                                                                                                                                                                                CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGC 1503
                                                                                                                                                                                                                                                                        CCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCA 1443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACAATGTGACTCTAGATGATCTGGTAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGC 1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGGCAGGGGGAAGAGAGGGGGGATTTGATCGT 963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCCGAGGGAACCCC
                                                                                                                                                                                                 CTCTGCGGAGGTCCAGGAGGCCCAGGAAGTCCTGGGGGGACCCATGGGTCACATGGGAGGC
                                                                                                                                                                                                                                                        CCAGTGAACAGTATGCAGGGTATGCCACCCCGTGAGGGCAGAGGGATGCCACCACCA
                                                                                                                                                                                                                                                                                                                               TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAGAAGCCT
                                                                                                                                                                                                                                                                                                                                                                       AAAGGTGATGCCACAGTGTCCTGTGAAGACTCACCTACTGCCAAAGCTGCCGTGGAATGG
                                                                                                                                                                                                                                                                                                                                                                                       AAAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGG
                                                                                                                                                                                                                                                                                                                                                                                                                               NACAAGAGAACTGAGCAACCCATGATCCACACCTACCTGGACAAGGAAACAAGAAAGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACAAGAGAACCTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAAT 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAG 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGAACCGGAGCATGAGTGGCCCTGATAACTGGGGCAGGGGAAGAGGGGGGATTTGATCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGA 903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTCCAAGTCAGTATAGCTAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCTGACAG
                                                                                                                                                                                                                                                                                                                TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCTCTTGCTCGGAAGAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACTAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCGGCAGCAGAGTTCATTCCGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCAGCTATGGGCAGCCTCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGATGCGGTGGAATGGGCAGCGCTGGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCAGCTATGGGCAGCTGCCTCCCACTAGTTACCCCACCCCAAACTTGATCCTACAGCCAA
                                                        1683
                                                                                                             1623
                            3680
                                                                                                                                                                     1563
                                                                                                                                                                                                                                                        3440
                                                                                                                                                                                                                                                                                                                                           1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2900
                                                                                                                                           3560
                                                                                                                                                                                                3500
                                                                                                                                                                                                                                                                                                                                                                       3320
                                                                                                                                                                                                                                                                                                                                                                                                  1323
                                                                                                                                                                                                                                                                                                                                                                                                                               3260
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               843
```

	QY 244 TATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAGC	GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACCTTCT		GCACAGACCCACCCAGCCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT	QY 64 AGCCAAGCTGCAGCGCAGCAGAGGGCTTACAGTGCTTACACCGCCCAGCCCACTCAAGGATAT 123	QY 4 GGACCTTGAGAGAACGAGGAGGAGAAAATGGCCTCCACGGATTACACTACCTAT 63	1785; Conservative 0; Mismatches 0; Indels 219; Gaps	Query Ma) I I F E : DVA ; ORGANISM: Human US-09-949-016-5043		TWARE:	; PRIOR APPLICATION NUMBER: 60/231,498 ; PRIOR FILING DATE: 2000-09-08 ; NUMBER OF SEC IN NOC. 2007019	PILING DATE: 2000-10-03	FILING DATE: 2000-10-20		KNOWN GENES ASSOCIATED	RESULT 3 US-09-949-016-5043 ; Sequence 5043, Application US/09949016 ; Parent No. 6812339	Db 3979 GAGCGCAGAGATCAGCCCTACTAGATGCAGAGAACCCGCAGA 4020	3919 GGAGGAAGAAGAGGACGTGAAGGACCTGGAAAAACGGATAAAGGCGAGCACTGTCAG	1924 GGAGGAAGAAGAGGGGGGGGGGGGGGGGGGGGGGGGG	1874 GETGGCTGTGGAAGAAGAAGAAGTGGCTTCCGTGGTGGACCGAAGTGGACCGAAGAGATGGACCGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGA	3741 GGCATGGGGGAAGAAGAGGTGGCCTCATGGATCATGGTGGCATGGAACGAAGGAAG	3681
8	Db	6 유	S S	B &) B 4	S B	Q !	B 8	Db	Ş	망	ρ	ф	8	B &	p Qy	D Q	D Q	B &	QQ VQ	B &	D Qy	φ φ
1384 CCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCA 1443		1042 AAAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGG 1101 1324 TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCT 1383	1264 AAAGGCGATGCCACAGTGTCCTATGAAGACCCCACCCACTGCCAAGGCTGCCGTGGAATGG 1323	982 AACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCC 1041				1024 CGAGGTGGCTTCAATAAGCCTGGTGGACCCATTGGATGAACGACCACATCTTGATCTACGC 1083 827GACCCATGGATGAACGACCAGATCTTGATCTACGC 861		964 GGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAG 1023	827 826	904 GAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGATCGT 963	827 826	844 GACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCCGGACCAGGA 903	784 GCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAG 843	724 AGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAA 783	664 CAGCAGAACACCTATGGGCAACCGAGCAGCAGTGGACAGAGAGAG	604 TACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCT 663	544 TACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCC 603	484 CAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGC	424 CAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGT 483	364 GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAG 423	304 GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAG 363

```
Sequence 5044, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASS

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF

PILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-00-41

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTMARE: FABSTEEQ for Windows Version 4.0

SEQ ID NO 5044

LENGTH: 1785

TYPE: DNA

ORGANISM: Human

US-09-949-016-5044
                                                                                                                                                                                                                                                                                                                                                                             RESULT 4
US-09-949-016-5044
                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
               Query Match
Best Local Similarity
Matches 1785; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1222
                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGCGCAGAGATCGGCCCTACTAG 2007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAGGAAGAAGAAGAAGGACGTGGAGAACTGGAAAAATGGATAAAGGCGAGCACCGTCAG 1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC 1863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTTGGAATGTTCAGA 1803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCCAAAGCCTGAA 1683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATG 1923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCTTCCTCCCGCCACCCTTTCCGCCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT 1743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGANACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAA 1461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rctggaggaggaaacgrccagcaccgagctggagactggcagtgtcccaatccgggttgt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTGGAGGAGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGT 1623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGC 1503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCTTCCTCCCGCCACCCTTTCCGCCCCCCGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCC 1563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGC
                 Conservative
                           76.8%;
89.1%;
              Score 1556; D
Pred. No. 0;
0; Mismatches
                                         DB 4;
               0
                                                                                                                                                                                                                                                                                           ASSOCIATED OF DETECTION AND USES
                                         Length 1785;
               Indels 219;
               Gaps
                                                                                                                                                                                                                                                                                            THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1221
              1;
8
                     밁
                                               δ
                                                                                뫄
                                                                                                     Ş
                                                                                                                                     문
                                                                                                                                                                8
                                                                                                                                                                                           밁
                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                 F
                                                                                                                                                                                                                                                                                                                               र्
                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
1084 CCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAAT
                                                                                                            964
                                                                                                                                                                                             827
                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                              784
                                                                                                                                                                                                                                                                                                                                   724
                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                         664
                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              304
                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      64
                                                                                                                                                                                                                                                                  GCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAG
                                                                                                                                                                                                                                                                                                                         AGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGCCAA
                                                                                                                                                                                                                                                                                                                                                                                CAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                    TACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTTGCTTATCCAGCCTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCACAGACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGACGTTGAGAGAACGAGGAGGAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTAT
                                                                                                                                                                                                                        GACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGA 903
                                                                                                                                                                                                                                                                                                         AGCAGCTATGGGCAGCAGCCTCCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGCCAA
                                                                                                                                                                                                                                                                                                                                                             CAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCT
                                           CGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGC
                                                                                                            GGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGCTGGAATGGGCAGCGCTGGAGAG 102:
                                                                                                                                                                 GAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGATCGT 963
                                                                                                                                                                                                                                                  GCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGA---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGCCAGCAGCCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCCAAGCTGCAGCGCAGCCAGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATAT 123
                                                                                  1083
                           861
                                                                                  826
                                                                                                                                                                                                                                                                            843
                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                  783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63
                                                                                                                                                                                                                                                    826
                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                         723
                                                                                                                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                                                                                                                663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
```

```
RESULT 5
US-09-949-016-1954
                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                  ş
                                                                                                                                                                                          ર્
                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                밁
                                                                                                                                                                           밁
                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                 문
Sequence 1954, Application US/09949016
PATENT NO. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS
FILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                                                                                       1462
                                                                                                                                                                                                                                                                                                                                                                                                   1402
                                                                                                                                                                                                                                                                                                                                   1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1042
                                                                                                                                                     1984
                                                                                                                                                                            1702
                                                                                                                                                                                                                       1642
                                                                                                                                                                                                                                                                  1582
                                                                                                                                                                                                                                                                                       1804
                                                                                                                                                                                                                                                                                                             1522
                                                                                                                                                                                                                                                                                                                                                                             1684
                                                                                                                                                                                                                                                                                                                                                                                                                        1624
                                                                                                                                                                                                                                                                                                                                                                                                                                               1342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1144
                                                                                                                                                                                                 1924
                                                                                                                                                                                                                                            1864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG
                                                                                                                               GAGCGCAGAGATCGGCCCTACTAG 2007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGGAAACAGGGAAAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCATGCGGGGAGGAGGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGGAATGTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCC
                                                                                                                                                                           GGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAG
                                                                                                                                                                                                 GGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAG 198
                                                                                                                                                                                                                                   TTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGATGGAACAGATG
                                                                                                                                                                                                                                                                               GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCCGTGGTGGCCGGGGCATGGACCGAGGTGGC
                                                                                                                                                                                                                                                                                                              GGCATGCGGGGAAGAAGATGGCCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGA
                                                                                                                                                                                                                                                                                                                                                         GGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                                                                                                                      GGCTTCCTCCCGCCACCCTTTCCGCCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                   GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCCAAAGCCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                  GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTGGAGGAGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCCAATCCGGGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCCGAGGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGTGGAGGAGATAGAGGGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCGAGGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGGACCCATGGGTCGCATGGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG
                                                                                                                                                                                                                                                                  GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGC
                    ASSOCIATED
OF DETECTION
                    DETECTION
                    AND
                    USES
                    THEREOF
                                                                                                                                                                                                                                                                                        1863
                                                                                                                                                                                                                                                                                                                                   1803
                                                                                                                                                                                                                                                                                                                                                                              1743
                                                                                                                                                                                                                                                                                                                                                                                                                          1683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1203
                                                                                                                                                                                                                                                                                                              1581
                                                                                                                                                                                                                                                                                                                                                         1521
                                                                                                                                                                                                                                                                                                                                                                                                   1461
                                                                                                                                                                                                                                                                                                                                                                                                                                                1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1101
                                                                                                                                                                              1761
                                                                                                                                                                                                                         1701
                                                                                                                                                                                                                                                                    1641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               981
                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
         δ
                              밁
                                               S
                                                                          吊
                                                                                           8
                                                                                                               밁
                                                                                                                                       S
                                                                                                                                                                 밁
                                                                                                                                                                                S
                                                                                                                                                                                                            밁
                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                              밁
                               721
                                                                           661
                                                                                                 664
                                                                                                                       601
                                                                                                                                            604
                                                                                                                                                                  541
                                                                                                                                                                                       544
                                                                                                                                                                                                             481
                                                                                                                                                                                                                                   484
                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                              424
                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                         364
                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                    304
                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                               244
                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                           184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      124
                                                    724
          784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4
          GCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAG
```

```
; LENGTH: 1783
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-1954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/949,01
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR PILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.
SEQ ID NO 1954
LENGTH: 1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 1719; Conserv
AGCAGCTATGGGCAGCCTCCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAA
                                                                            CAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAA
                                                                                                                                                    TACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCT
                                                                                                                                                                                                                                 TACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCC
                                                                                                                                                                                                                                                                                                             CAGCCAGTAGCCACTGCACCTACAAGACCGCAGAATGGAAACAAGCCCACTGAGACTAGT
                                                                                                                                                                                                                                                                                                                                                                                              CAGCCAGCAGCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCCACTGAGACTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCAGCTATACCCAGGCTCAGACCACTGCAATCTATGGGCAGACCGCCTATGCAACTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCATTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCCAAGCTGCAGCGCAGCAGGCTACAGTGCTTACAACACCCCAGCCCACTCAAGGATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAGCTCAAGGATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCATCCATGGATTACAGTACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGACGTTGAGAGAACGAGGAGGAAGAAGAAAATGGCGTCCACGGATTACAGTACCTAT
                                                                                                                                  TACCCTACCAGCTATTCCTCTACACAGCCAACTAGTTATGATCAGAGCAGTTACTCT
                                                                                                                                                                                                             TGCAGTTATCCCCAGGTACCTGGGAGCTACTCCATGCAGCCAGTCACCGCACCTCCATCC
                                                                                                                                                                                                                                                                                         GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1429.6;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221;
                783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
                                                          720
                                                                                            723
                                                                                                                                  660
                                                                                                                                                                         663
                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                     603
                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                              543
                                                                                                                                                                                                                                                                                                                                                                                                          483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      243
                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
```

843

ð

: :

```
1864
                                                                                                                                                                             1522
                                                                                                                                                                                                                       1744
                                                                                                                                                                                                                                                                     1462
                                                                                                                                                                                                                                                                                                                   1684
                                                                                                                                                                                                                                                                                                                                                               1402
                                                                                                                                                                                                                                                                                                                                                                                                              1624
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
TTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCTGGACCTTTGATGGAACAGATG
                                                                                                                                                                                                                                                                                           GGCTTCCTCCCGCCACCCTTTCCGCCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                        GGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAA 1683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTGGAGGAGAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ANAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGG 1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG 1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGC 108:
                                                                                                                                                                                                     GGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTGGTCCCGGTGGAATGTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGTGGAGGAGATAGAGGAGGCCTCCCTCCAAGAGGACCCCCAGGGTTCCCCGAGGGAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCGAGGGAACCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGTGAACAGTATGCAGGGTGGTATGCCACCCCGTGAGGGCAGAGGGATGCCACCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAACAGGAAAGCCC 1263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAAT 1142
                                                                                                                            GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC
                                                                                                                                                                                                                                                                     GGCTTCCTCCCGCCACCCTTCCCACCCCCGGGTGGTGATCATGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                                                                                                             GGAAACCAGAACTTCGCCTGGAGAACAGAGAGCAACAAGTGTAAGGCTCCAAAGCCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTGGAGGAGGAAACGTCCAGCACCAAGCTGGAGACAGGCAGTGTCCCAATCCGGGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCTGCGGAGGTCCAGGAGGCCCAGGAAGTCCTGGGGGACCCATGGGTCACATGGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAATGAACAGTATGCGGGGTGGTCTGCCACCCCCGTGAGGGCAGAGGCATGCCACCACCA 1443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCTCTTGCTCGGAAGAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGA 903
                                                                                                                                                                      GGCATGTGGGGAGGAAGAGGTGGCCTCATGGATCATGGTGGTCCCCGGTGGAATGTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ТТТСАТСССАЛАСАТТТТСАЛСССАССАЛАСТТАЛАСТСТСССТТССТСССАЛАСЛАССТ 1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAGGTGATGCCACAGTGTCCTGTGAAGACTCACCTACTGCCAAAGCTGCCGTGGAATGG 1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AACAAGAGAACTGAGCAACCCATGATCCACACCTACCTGGACAAGGAAACAAGAAAGCCC 1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACAATGTGACTCTAGATGATCTGGTAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAAT 921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAG 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGATCGT 963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ----GACCCATGGATGAAGGACCAGATCTTGATCTAGGC
                                                                                                                                                                                                                       . 1803
                                                                                                                          1863
                                                                                                                                                                        1581
                                                                                                                                                                                                                                                                     1521
                                                                                                                                                                                                                                                                                                               1743
                                                                                                                                                                                                                                                                                                                                                             1461
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           826
```

8 8 8 8 8 8 8 8

밁

문

성 유

8 8 8 8 8

Ś

밁 S 밁 ફ 밁 S 밁 Ś 문 8 밁 Ś 밁 ঠ 문 S

```
S
                                                                 밁
                                                                                            Ś
                                                                                                                                   밁
                                                                                                                                                                  Ś
                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 6
US-08-437-027-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                             US-08-437-027-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 18, Application Patent No. 5670317
                                                                                                                                                                                                                                                                         Matches 819;
                                                                                                                                                                                                                                                                                           Best Local Similarity
                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: 212-391-0525
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 2412 base pair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
TOPOLOGY: lir
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 1100 ...
STREET: New York
CITY: New York
STATE: New York
O'NTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Landanyi, Marc
APPLICANT: Gerald, William
TITLE OF INVENTION: A DIAGNOSTIC TEST FOR TEST FOR THE DESMOPLASTIC
TITLE OF INVENTION: SMALL ROUND CELL TUMOR
NUMBER OF SEQUENCES: 21
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 46
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-278-0400
TELEFAX: 212-391-0525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
NAME: White, John P
REGISTRATION NUMBER: 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible
OPERATING SYSIEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: FILING DATE: CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 2412 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Cooper & Dunham STREET: 1185 Avenue of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1641 TTTGGTGGAGGAAGACAAGGTGGCCCTGGGGGGCCCCC-GGACCTTTGATGTAACCAATG 1699
181
                                                                   121
                                                                                                 133
                                                                                                                                     61
                                                                                                                                                                     73
                                                                                                                                                                                                                         13 GAGAACGAGGAGGAAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10036
                            ACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAG
                                                                                              ACCCAGGCATATGGGCAACAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTAT
                                                                                                                                                                     GCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACC
                                                                                                                                                                                                     GAGAACGAGGAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGCGCAGAGATCGGCCCTACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAG 1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGCGCAGAGATCAGCCCTACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAGGAAGAAGAGGACGTGAAGGACCTGGAAAAACGGATAAAGGCGAGCACTGTCAG 1759
                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                             cDNA to mRNA
                                                                                                                                                                                                                                                                                                                                                                                             single
                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                     40.4%; Score 819; DB 1; L
100.0%; Pred. No. 1.4e-210;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US/08437027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US/08/437,027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28,678
                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      46416/JPW/CCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Americas
                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Version
                                                                                                                                                                                                                                                                                                       Length 2412;
                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                       <u>,,</u>
                                252
                                                                                                   192
                                                                                                                                                                     132
                                                                 180
                                                                                                                                     120
                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                       0
```

```
US-09-513-999C-1657
Sequence 1657, Application US/09513999C
Patent No. 6783961
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                               ; NAME/KEY: CDS
; LOCATION: 56..454
US-09-513-999C-1657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                          APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Duclett, A.
APPLICANT: Giordano, J.Y.
TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
Patent No. 6783961
PILE REFERENCE: 59.US2.REG
CURRENT APPLICATION NUMBER: US/09/513,999C
CURRENT FILING DATE: 2000-02-24
PRIOR APPLICATION NUMBER: US 60/122,487
PRIOR PILING DATE: 1999-02-26
NUMBER OF SEQ ID NOS: 36681
SOFTWARE: Patent.pm
SOFTWARE: Patent.pm
                                                         Query Match
Best Local
                                            Matches 435;
                                                                                                                                          FEATURE:
                                                                                                                                                   ORGANISM: Homo sapiens
                                                                                                                                                                   TYPE: DNA
                                                                                                                                                                                 LENGTH: 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     793
                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAGGCCTCCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGT 831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGCAGCAGCCTCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGT 792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTAGCACAGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCTATGGGCAACCGAGCAGCTATGGACAGCAGCTATGGTCAACAAAGCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCTATGGGCAACCGAGCAGCTATGGACAGCAGCAGCTATGGTCAACAAAGCAGCTAT 732
                                            Conservative
                                                         20.9%;
99.8%;
                                            Score 424; DB 4;
Pred. No. 2.4e-104;
0; Mismatches 0;
                                                                    Length 454;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            819
                                            1;
                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                    60
```

δ

184

GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCT

243

```
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 8
US-09-949-016-66382,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              멼
밁
                               Ś
                                                                 吊
                                                                                           5
                                                                                                                                 밁
                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           吊
                                                                                                                                                                                                                                                                     ; ORGANISM: Human
US-09-949-016-66382
                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
                                                                                                                                                                                                   Query Match
Best Local S
Matches 367
                                                                                                                                                                                                                                                                                                                  SOFTWARE: FastSEQ for Windows Version SEQ ID NO 66382 LENGTH: 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 66382, Apparent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION: APPLICANT: VENTER, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                      TYPE: DNA
                                                                                                                                                                                                     Local Similarity
nes 367; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                   314
                                                                                                                                   374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421 CAGCAGCCAGCAGCCA 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            199 GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              139 TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT
 254
                                124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20 GACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                                                  64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 TATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA
                                                                                                                                                                    4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT 183
                                                                 AGCCAAGCTGCAGYGCAGCAGGGCTACAGTGCTTACAACACCCCAGCCCACTCAAGGATAT
                                                                                        AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCCACTCAAGGATAT 123
                                                                                                                                   GACGTTGAGAGAACGAGGAAGGAAGGAGAAAATGGCATCCATGGATTACAGTACCTAT 315
                                                                                                                                                         GGACGTTGAGAGAACGAGGAGGAAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTAT 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGCAGCCAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG
   GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCATTGAT
                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Application US/09949016
                                                                                                                                                                                                                   18.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            454
                                                                                                                                                                                                 Score 364; DB 4;
Pred. No. 4.3e-88;
1; Mismatches 6
                                                                                                                                                                                                                                      Length 601;
                                                                                                                                                                                                      Indels
                                                                                                                                                                                                     0
                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   79
                                                                     255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
   195
                                                                                                                                                                                                      ٥
```

```
Regult
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OM nucleic - nucleic search, using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Searched
                                                                                                                         იი
                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
       2023.4
2023.4
2023.4
2023.4
1986.4
1856.6
1652.4
570
514.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BB BB
                                                                                                                                                                                                                                                                                   Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     seq length: 0
seq length: 2000000000
         100.0
99.9
99.9
99.9
98.1
91.7
81.6
31.2
28.1
25.4
                                                                                                                                                                                                                                                                               Match Length DB ID
                                                                                                                                                                                                                                                                                                         Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          February 20, 2005, 11:50:34; Search time 1065.67 Seconds (without alignments)
11231.185 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-791-017A-1_COPY_8_2032
2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5384158 segs, 2955248155 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Published_Applications_NA:*

| (gn2_6/ptodata/2/pubpna/USO7_PUBCOMB.seq:*
| (gn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq:*
| (gn2_6/ptodata/2/pubpna/USO5_NEW_PUB.seq:*
| (gn2_6/ptodata/2/pubpna/USO5_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             : /cgn2_6/ptodata/2/pubpna/USO6_NEW_PUB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO6_NEW_PUB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO6_NEW_PUB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO6_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO6_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO9E_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO9E_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO9E_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO9E_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO9E_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO9E_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO0E_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO0E_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USO0E_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USOOE_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USOOE_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USOOE_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USOOE_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USOOE_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USOOE_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USOOE_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USOOE_PUBCOMB.seq:*
:/cgn2_6/ptodata/2/pubpna/USOOE_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gacggacgttgagagaacga....agatgcagagaccccgcaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GenCore version 5.1.6 Copyright (c) 1993 - 2005 Compugen Ltd
         2390
2390
2390
2390
2176
2176
2273
1988
1988
1763
2299
550
                          18 US-10-791-017A-1
9 US-09-880-107-2769
10 US-09-960-706-1081
10 US-09-873-319-717
9 US-09-822-830A-49
9 US-09-822-830A-49
17 US-10-094-749-1074
18 US-10-485-115-182496
14 US-10-198-846-9847
19 US-09-864-761-8001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₩
                                                                                                                                                                                                                                                                                                                                                      SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mode1
Sequence 1, Appli
Sequence 3769, Ap
Sequence 1081, App
Sequence 717, App
Sequence 410, Appl
Sequence 410, Appl
Sequence 1074, Ap
Sequence 182496,
Sequence 9847, Ap
Sequence 8001, Ap
Sequence 8001, Ap
                                                                                                                                                                                                                                                                               Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2025
```

O						ი											a				a		a	ი								a	
45	44	43	42	41	40	39	38	37	36	35	3 4	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
100.4	116.4	116.4	116.4	128	129.4	129.6	:	144	174.4	175.2	175.2	175.2	181	181	181	181	181	187	188	188	216.4	253	254.2		258.4	267.4	269.8	309	370.6	384.6	99.	411.6	480.2
5.0				6.3		6.4			8.6	8.7					8.9				9.3	9.3					12.8	13.2	13.3	15.3	18.3	19.0	19.7	20.3	23.7
460	450	450	450	386	43712	147	483	187	468	1939	1824	1822	3132	3132	3132	3132	1256	188	538	449	457	253	262	503	503	521	361	545	417	399	401	505	568
10	15	9	φ	15	18	9	10	9	10	10								16	16	9	18	9	16	16	9	φ	φ	9	Q	9	10	9	10
US-09-918-995-27342	US-10-144-649A-145	US-09-854-133-145	US-09-738-973-145	US-10-101-510-297	US-10-723-860-1576	US-09-864-761-24470	US-09-918-995-2865	US-09-864-761-19297	US-09-918-995-19709	•	US-10-439-703-58	US-10-755-889-649	US-10-027-632-114301	US-10-027-632-111655	US-10-027-632-114301	US-10-027-632-111655	US-10-723-860-8052	US-10-029-386-17973	US-10-029-386-4273	US-09-864-761-2572	US-10-469-285-488	US-09-864-761-25438	US-10-029-386-18163	US-10-029-386-4463	US-09-864-761-8728	US-09-933-797-481	US-09-960-352-3851	US-09-925-301-669	US-09-960-352-10259	US-09-864-761-24705	US-09-918-995-3868	US-09-864-761-7766	US-09-918-995-9557
273	e 145	Sequence 145, App	145,	297	Sequence 1576, Ap	24470,	Sequence 2865, Ap			Sequence 322, App				Sequence 111655,		111655		Sequence 17973, A	3 4273	Seguence 2572, Ap	e 488,	Sequence 25438, A	18163,	e 446		481,	3851	669,		Sequence 24705, A	Sequence 3868, Ap	7766,	Sequence 9557, Ap

ALIGNMENTS

```
8
                                                                                                                                                                                                         ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (44)..(2011)
; OTHER INFORMATION: EWS
US-10-791-017A-1
밁
                                                                  밁
                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-791-017A-1
Sequence 1. Application US/10791017A
Publication No. US20040197827A1
GENERAL INFORMATION:
                                                                                                                                     Query Match 100.0%; Score 2025; Best Local Similarity 100.0%; Pred. No. 0; Matches 2025; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                               SEQ ID NO 1
LENGTH: 2390
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: JENAPHARM GmbH & Co. KG
TITLE OF INVENTION: Methods for Determining
FILE REFERENCE: Pat 3684/11
CURRENT APPLICATION NUMBER: US/10/791,017A
CURRENT FILING DATE: 2004-03-02
NUMBER OF SEQ ID NOS: 7
                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Ver. 2.1
89
                  61 TATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAGCCCAAGGA 120
                                                                    8
TATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA
                                                                  GACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAAATGGCGTCCACGGATTACAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hormonal Effects of Substances
                                                                                                                                                                          DB 18;
                                                                                                                                       0
                                                                                                                                         Indels
                                                                                                                                                                        Length 2390
                                                                                                                                       0;
                                                                                                                                         Gaps
                                                                                                       60
127
                                                                    67
                                                                                                                                         0
```

```
1148
                                                                                                                                                                                 1028
                                                                                                                                                                                                                     1021
 1201
                                                                                                          1088
                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                       848
                                                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               128
                                                                                                                                                                                                                                                          968
                                                                                                                                                                                                                                                                                                                                  908
                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCCAAACTGGATCCTACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCAGCCAGCCACTGCACCTACAAGACCGCAGGATGGAAACCAAGCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC
ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG 1260
                                                   AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAG 1200
                                                                                                          GGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA
                                                                                                                               GGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA
                                                                                                                                                                                     GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA
                                                                                                                                                                                                                                                                                   CGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGACGCGGTGGAATGGGCAGCGCTGGA 1020
                                                                                                                                                                                                                                                                                                                                                                   GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGGAGGGGGAAGAGGGGGGATTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                          CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCCGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGCAGAGTAGCTATGGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGCAGCCAGCACCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG
                                    AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAG
                                                                                                                                                                                                                                                            CGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAAGGACGCGGTGGAATGGGCAGCGCTGGA
                                                                                                                                                                                                                                                                                                                                  GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                         CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCA
                                                                                                                                               1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                            . 1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               187
                                    1207
                                                                                                                                                                                 1087
                                                                                                                                                                                                                                                              1027
                                                                                                                                                                                                                                                                                                                                  967
                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                                                                                                                                         907
                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
```

밁 र्

밁 र् δ

밁 Ś 밁

밁

ş 밁 ঠ 밁 ð 밁 र्

S

닭 S 문

밁 S S 밁 S 밁 5 밁 S

문

```
Ş
                                                                   S
                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                              망
                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
유
                                               밁
                                                                                                   밁
                                                                                                                        S
                                                                                                                                                   밁
                                                                                                                                                                            S
                                                                                                                                                                                                       밁
                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                1628
                                                                                                                                                                                                                                                                                                                                       1621
                                                                                                                                                                                                                                                                                                                                                                  1568
                                                                                                                                                                                                                                                                                                                                                                                                                                           1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1208
                                                                                                                                                      1808
                                                                                                                                                                                1801
                                                                                                                                                                                                                                                            1688
                                                                                                                                                                                                                                                                                      1681
                                                                                                                                                                                                                                                                                                                                                                                         1561
                                                                                                                                                                                                                                                                                                                                                                                                                   1508
                                                                                                    1868
                                                                                                                              1861
                                                                                                                                                                                                                                    1741
                                                               ATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT 1980
                                                                                                                   GGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAG
                                                                                                                                                                    AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                                       GGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTC
                                                                                                                                                                                                                                                                            GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT
                                                                                                                                                                                                                                                                                                                                TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT
                                                                                                                                                                                                                                                                                                                                                                  CCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCCGTGGAGGAGATAGAGGGGGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCCGAGGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCCATGGGTCGCATGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA
                                                                                                                                                        AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                          GGTGGCATGCGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTC
                                                                                                                                                                                                                                                             GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT
                                                                                                                                                                                                                                                                                                                TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT
                                                                                                                                                                                                                                                                                                                                                                                          CCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                    GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA
                                                  ATGGGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT
                         2025
                                                                                                                                                                                                                                                                                                                                                                                             1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1320
                                                                                                                               1920
                                                                                                                                                        1867
                                                                                                                                                                                 1860
                                                                                                                                                                                                                                     1800
                                                                                                                                                                                                                                                                                      1740
                                                                                                                                                                                                                                                                                                                                         1680
                                                                                                                                                                                                                                                                                                                                                                   1627
                                                                                                                                                                                                                                                                                                                                                                                                                                             1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1327
                                                                                                                                                                                                           1807
                                                                                                                                                                                                                                                               1747
                                                                                                                                                                                                                                                                                                                  1687
                                                                                                                                                                                                                                                                                                                                                                                                                     1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1267
```

RESULT 2
US-09-800-107-3769
; Sequence 3769, Application
; Patent No. US20020142981A1
; GENERAL INFORMATION: APPLICANT: Scherf, Uwe
APPLICANT: Gene Logic, Inc.
TITLE OF INVENTION: Gene Expression Profiles in
FILE REFERENCE: 44921-5028-WO
CURRENT APPLICATION NUMBER: US/09/880,107
CURRENT FILING DATE: 2001-06-14
PRIOR APPLICATION NUMBER: US 60/211,379
PRIOR FILING DATE: 2000-06-14
PRIOR FILING DATE: 2000-01-10-02
PRIOR APPLICATION NUMBER: US 60/237,054
PRIOR FILING DATE: 2000-10-02 APPLICANT: Horne, Darci ...
APPLICANT: Vockley, Joseph
APPLICANT: Scherf, Uwe
APPLICANT: Scherf, Inc US/09880107 in Liver Cancer

2032

δ 밁 ঠ 밁 S

S 밁

```
; NUMBER OF SEQ ID NOS: 3950
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 3769
; LENCTH: 2390
; TYPE: DNA
; ORGANISM: Homo sapiens
; PEATURE:
; OTHER INFORMATION: Genbank Accession No. US20020142981A1 X66899
US-09-880-107-3769
                                                           8 8 8 8
                                                                                                               8 8 8 8 8 8 8
                                                                                                                                                                                                           밁
                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                    닭
                                                                                                                                                                                                                                                                                                  ફ
                                                                                                                                                                                                                                                                                                                                           밁
유
                         음 성 음
                                                                                                                                                                                                                                                                       ક
                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                           र्
                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                             Query Match 99.9%; Score 2023.4; Best Local Similarity 100.0%; Pred. No. 0; Matches 2024; Conservative 0; Mismatches
         841
                         788
                                                 728
                                                            721
                                                                                        661
                                                                                                     809
                                                                                                                  601
                                                                                                                               548
                                                                                                                                         541
                                                                                                                                                                    481
                                                                                                                                                                                 428
                                                                                                                                                                                          421
                                                                                                                                                                                                           368
                                                                                                                                                                                                                                     308
                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                       188
                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                 128
 848
                                     781
                                                                             668
                                                                                                                                                         488
                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                              248
                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                           89
                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                   TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                                                                                                                        AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT
                                                                                                                                                                                                           CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCA
                         CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                               AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                 CAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT
                                                                                                                                                                                                                                     TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG
                                                                                                                                                                                                                                                                                       GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                 TATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCAGCCCACTCAAGGA 120
                                                                                                                                                                                                                                                                                                                                                                                                           BB
                                                                                                                                                                                                                                                                                                                                                                                              1;
                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                              <u>.</u>,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ri i
            900
                         847
                                      840
                                                  787
                                                                            727
                                                                                        720
                                                                                                     667
                                                                                                                  660
                                                                                                                               607
                                                                                                                                                        547
                                                                                                                                                                    540
                                                                                                                                                                                 487
                                                                                                                                                                                              480
                                                                                                                                                                                                           427
                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                     367
                                                                                                                                                                                                                                                              307
                                                                                                                                                                                                                                                                                        247
                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                 187
                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                     67
                                                                                                                                                                                                                                                                                                                                                                                              0
      유 상 유
                                        5
                                                    밁
                                                                  S
                                                                             유 &
                                                                                                        8 8 8 8 8 8
                                                                                                                                                                                                중 음 중 음
                                                                                                                                                                                                                                                    5 B 5
                                                                                                                                                                                                                                                                                         8 8 8 8
                                                                                                                                                                                                                                                                                                                                             8 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                  유 &
                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                    1801
                                                                                  1748
                                                                                                                                     1628
                                                                                                                                                  1621
                                                                                                                                                              1568
                                                                                                                                                                           1561
                                                                                                                                                                                        1508
                                                                                                                                                                                                    1501
                                                                                                                                                                                                                 1448
                                                                                                                                                                                                                                           1388
                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                                                                1321
                                                         1808
                                                                                                            1688
                                                                                                                                                                                                                              1441
                                                                                                                                                                                                                                                                     1328
                                                                                                                                                                                                                                                                                              1268
                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                       1208
                                                                                                                                                                                                                                                                                                                                                                           1088
                                                                                                                                                                                                                                                                                                                                                                                                                             968
                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   106
              ATGGGAGGAAGAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT
                                GGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGGCCCCCTGGACCTTTGATGGAACAG
                                                        AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                                                                                  GGTGGCATGCGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTC
                                                                                                           CCCTCTGGAGGAAGCGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                                                        GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCGAGGGAAC 1560
                                                                                                                                                                                                                 CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGACCCATGGGTCGCATGGGA 1500
                                                                                                                                                                                                                                          CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA 1440
                                                                                                                                                                                                                                                                    AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAG
                                                                                                                                                                                                                                                                                                                                                                         GGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA 1140
                                                                                                                                                                                                                                                                                                                                                                                                   GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                             CGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGAT
                   1980
                                                                                                                        1740
                                                                                                                                     1687
                                                                                                                                                              1627
                                                                                                                                                                                       1567
                                                                                                                                                                                                                                                                                                          1320
       1987
                                            1920
                                                         1867
                                                                      1860
                                                                                                            1747
                                                                                                                                                                                                                                                                                1380
                                                                                                                                                                                                                                                                                              1327
                                                                                                                                                                                                                                                                                                                        1267
                                                                                                                                                                                                                                                                                                                                                 1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                       967
```

Qy 421 CAGCAGCCACTGCACCTACAAGACCGCAGGATGGAACAAGACCACTGAGACT 480	The control of the co	181 GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT	Qy 61 TATAGCCAAGCTGCAGCGCAGCAGGGCTACACAGTGCTTACACCGCCCAGCCCACTCAAGGA 120	Query Match 99.9%; Score 2023.4; DB 10; Length 2390; Best Local Similarity 100.0%; Pred. No. 0; Matches 2024; Conservative 0; Mismatches 1; Indels 0; Gaps 0; You conservative 0; Mismatches 1; Indels 0; Gaps 0; Operation of the conservation of t	SOFTWARE: Patentin Ver. 2.1 SEQ ID NO 1081 LENGTH: 2390 TYPE: DNA GRANISM: Homo sapiens FEATURE: INFORMATION: Genbank Accession No. US20030134280A1 X66899 US-09-960-706-1081		O9-960-706-1081 -09-960-706-706-1081 -09-960-706-706-706-706-706-706-706-706-706-7	QY 1981 CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA 2025
1508 GGCCGTGGAGGAGTACAGGAGCTTCCCCTCCAAGAGGACCCCGAGGGTTCCCCAAGAGGACCCCCGAGGATCCCCAAGAGGACCCCCGAGGATCCCCAAGAGGACCCCCGAGGATCCCCAATCCGAGT 16 1561 CCCTCTGGAGGAAAACGTCCAGCACCCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT 16	Db 1388 CITETATE TO THE TOTAL TRANSPORTED TO THE TOTAL TRANSPORT TO THE TOTAL TRANSPORTED TO THE TOTAL TRANSPORT T				901 908 961	Qy 781 CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCAGCAGAGTTCATTCCGA 840	Qy 661 TCTC Db 668 TCTC Qy 721 CAAP	QY 601 TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC 660

۲,

```
APPLICANT: William E.
APPLICANT: William E.
APPLICANT: William E.
APPLICANT: William E.
APPLICANT: Wangar, iwao
APPLICANT: Waga, Iwao
APPLICANT: Waga, Iwao
APPLICANT: Waga, Iwao
APPLICANT: Waga, Iwao
APPLICANT: Yamamoto, Jun
ITILE OF INVENTION: Identifying Drugs for and Diagnosis of Benign Prostatic
ITILE OF INVENTION: Hyperplasia Using Gene Expression Profiles
FILE REFERENCE: 44921-5029-US
CURRENT APPLICATION NUMBER: US/09/873,319A
CURRENT APPLICATION NUMBER: US 60/223,323
EARLIER APPLICATION NUMBER: US 60/223,323
EARLIER FILING DATE: 2000-08-07
NUMBER OF SEQ ID NOS: 755
SOPTWARE: Patentin Ver. 2.1
SEQ ID NO 717
LENGTH: 2390
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
FEATURE:
CTHER INFORMATION: Genbank Accession No. US20030134324A1 X66899
US-09-873-319-717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 4
US-09-873-319-717
J Sequence 717, Application US/09873319A
Publication No. US20030134324A1
GENERAL INFORMATION:
                                                                ঠ
                                                                                                  문
                                                                                                                           S
                                                                                                                                                          문
                                                                                                                                                                                          S
                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                         8
      δ
                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ş
                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 2024; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1681
                                    188
                                                                    181
                                                                                                     128
        241
                                                                                                                                   121
                                                                                                                                                                   68
                                                                                                                                                                                                19
                                                        GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                           GACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT
    TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG 300
                                                                                                                         TATGCACAGACCACCCAGGCATATGGGCAACAAGCTATGGAACCTATGGACAGCCCACT 180
                                                                                                                                                                                               TATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA 120
                                                                                                                                                                                                                              GACGGACGTTGAGAGAAACGAGGAGGAAGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGA 2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCTTTGGTGGAGGAGGAGGTGGCCCTTGGGGGCCCCCTGGACCTTTGATGGAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGGAATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTC 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAG 1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                          99.9%; Score 2023.4;
100.0%; Pred. No. 0;
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                          DB 10;
                                                                                                                                                                                                                                                                                            1;
                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                            <u>.</u>
                                                                                                  187
                                                                                                                                                                 127
                                                                                                                                                                                                                              67
                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1807
                  á
                                                   片
                                                                               δ
                                                                                                                 吊
                                                                                                                                          S
                                                                                                                                                                            밁
                                                                                                                                                                                                         S
                                                                                                                                                                                                                                            片
                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                     1321
                                                                                                                                                                                                                                             1088
                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                        806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAG
                                                                                                                                   ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG
                                                                                                                                                                                                AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAG
                                                                                                                                                                                                                                                            GGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA 1140
                                                                                                                                                                                                                                                                                                                               GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA 1080
                                                                                                                                                                                                                                                                                                                                                                        CGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGA 1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCAGCCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC 360
                                                                                   GGCCCTCCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA
                                                                                                                                                                                                                                                                                                           GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA
                                                                                                                                                                                                                                                                                                                                                                                                CGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAGAGAACCGGAGCATGAGTGGCCCCTGATAACCGGGGCAGGGGGAAGAGAGGGGGATTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG
                                                                                                                 ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGCAGTAGCTATGGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                                                                                                                                                1207
                                                                                                                                                                                                                                            1147
                     1380
                                                                                                                                                                                                                                                                                                             1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                                                                                        967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      367
```

Length

ļ

```
APPLICANT: Genetics Institute, Inc.
APPLICANT: Wong, Gordon G.
APPLICANT: Wong, Gordon G.
APPLICANT: Clark, Hilary
APPLICANT: Fechtel, Kim
APPLICANT: Agostino, Michael J.
APPLICANT: Agostino, Michael J.
APPLICANT: Resnick, Richard J.
APPLICANT: Gulukota, Kamalakar
APPLICANT: Gulukota, Kamalakar
APPLICANT: Graham, James R.
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS
FILE REFERENCE: GIN 6402
CURRENT APPLICATION NUMBER: US/09/822,830A
CURRENT APPLICATION NUMBER: 60/195,604
PRIOR APPLICATION NUMBER: 60/195,604
PRIOR APPLICATION SUMBER: 60/195,604
                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 5
US-09-822-830A-49/c
US-09-822-830A-49/c
; Sequence 49, Application US/09822830A
; Patent No. US20020142952A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
LENGTH: 2176
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCCGAGGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGACCCATGGGTCGCATGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCTTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGCCCCCCTGGACCTTTGATGGAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1627
                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 र्
                              δ
                                                                                g
                                                                                                                         S
                                                                                                                                                                     밁
                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-822-830A-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2111
                                                                                                                                                                                                                                                     1392
                                                                                                                                                                                                                                                                                                                                          1452
                                                                                                                                                                                                                                                                                                                                                                                                                          1512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2051
    1212
                                                                                    1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1998;
                                         986
                                                                                                                                                                                                            966
                                                                                                                                                                                                                                                                                                                                                                               746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                    CCACTAGTTACCCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                CGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAGCTACCCCATGCAGCCAGTCACTGCACCTCCTACCCTACCAGCTATTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTTACAACCAGCCCAGGCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTATGATACCACCACTGCTACAGTCACCACCACCAGGCCTCCTATGCAGCTCAGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATACTACTCCAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCAGCCCAGGCATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGGTGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGC
                            GGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTG
                                                                                                                                                                                                 AGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTG
                                                                                                                                                                                                                                                                                   AGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                          CGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCTACCAGCTATTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCCAGGTACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAAGACCGCA-GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTATGATACCACCACTGCTACAGTCACCACCACCAGGCCTCCTATGCAGCTCAGTCTG
    GGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTG
                                                                                    CTGATAACCGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGC
                                                                                                                                                                                                                                                                                                                                          CCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAAC
                                                                                                          CTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1986.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9;
```

445

1812 385

1752

1693

505

565

1273

985

1045 1213

1153

1333

1393 805 1453

865

1513 685 1573 625 1633

745

1872

325

1932

265

1992

205

2052

145

```
RESULT 6
US-09-822-830A-410/c
; Sequence 410, Application US/09822830A
                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                 ঠ
                                                                                                            밁
                                                                                                                                       ঠ
                                                                                                                                                                     В
                                                                                                                                                                                        र्
                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ફ
                                                                                                                                                                                                                                                 1826
                                                                                                                                                                                                                                                                                                  1766
                                                                                                                                                                                                                                                                                                                                                      1706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1046
                                                                                                                                             1946
                                                                                                                                                                                              1886
                                                                                                                                                                                                                                                                                                                                                                                                        1646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     672
                                                                                                                   252
                                                                                                                                                                                                                        372
                                                                                                                                                                                                                                                                           432
                                                                                                                                                                                                                                                                                                                              492
                                                                                                                                                                                                                                                                                                                                                                              552
                                                                                                                                                                                                                                                                                                                                                                                                                                  612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 972
                                                                                                                                                                                                                                                                                                                                                                                             GAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTC 1705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGAGATAGAGGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGATGCAGAGACCCCGCAGA 2025
                                                                                                                                   GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGAGATCGGCCCTACT
                                                                                                                                                                   GCCCTGGGGGGGCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAGGAGGACGTG
                                                                                                                                                                                        GCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGACGTG
                                                                                                                                                                                                                                     GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAGGAAGACGAGGTG
                                                                                                                                                                                                                                                                                           GCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                                                          CGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTTGGTGGCATGCCGGGGAGGAAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCGAGCTGGAGACTGCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGATCCACATCTACCTGGACAAGGAAACAGGAAAAGCCCAAAGGGCGATGCCACAGTGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG
                                                                                                                    GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACT
                                                                                                                                                                                                                                                                          GCCTCATGGATCGTGGTGCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                                                                                              GAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGGAGGTCCTGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCT
                                                                                                                                                                                                                                                                                                                             CGCCCCCGGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                ACCGAGCTGGAGACTGGCAGTGTCCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCT
                                                                   173
                                                                                                                                             2005
                                                                                                                                                                                              1945
                                                                                                                                                                                                                                                                                                  1825
                                                                                                                                                                                                                                                                                                                                                      1765
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1033
                                                                                                                   193
                                                                                                                                                                                                                                                                                                                                                                              493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1093
                                                                                                                                                                                                                        313
                                                                                                                                                                                                                                                 1885
                                                                                                                                                                                                                                                                                                                              433
                                                                                                                                                                                                                                                                                                                                                                                                                                  553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patent No. US20020142952A1

GENERAL INFORMATION:

APPLICANT: Genetics Institute, Inc.

APPLICANT: Wong, Gordon G.

APPLICANT: Clark, Hilary

APPLICANT: Fechtel, Kim

APPLICANT: Howes, Steven H.

APPLICANT: Howes, Steven H.

APPLICANT: Graham, James R.

TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOV

FILE REFERENCE: GIN 6402

CURRENT APPLICATION NUMBER: US/09/822,830A

CURRENT FILING DATE: 2000-04-06

NUMBER OF SEQ ID NOS: 631

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 410

LENGTH: 2273

TYPE: DNA

ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                밁
                                                                                   8
                                                                                                           밁
                                                                                                                                      ð
                                                                                                                                                                   밁
                                                                                                                                                                                     S
                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                           닭
                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity Matches 1933; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                1668
                                                                                                                                                                                                                        1908
                                                                                                                                                                     1848
                                                                                                                                                                                                                                                                          1968
                                                                                                                                                                                                                                                                                                                             2028
                                                                                                                                                                                                                                                                                                                                                                              2088
                                                                                                                                                                                                                                                                                                                                                                                                                                  2148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2268
                                                                                                                                                                                                                                                                                                  335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95
                CGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCT
                            CGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCT
                                                                AGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACC
                                                                                                                                                                                             AGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACC
                                                                                                                                                                                                                                     CCACCACTGCTACAGTCACCACCACCCAGGCCTCTATGCAGCTCAGTCTGCATATGGCA
                                                                                                                                                                                                                                                                                                                             CAACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATA
                                                                                                                                                                                                                                                                                                                                          CAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATA
                                                                                                                                                                                                                                                                                                                                                                              CCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTC
                                                                                                                                                                                                                                                                                                                                                                                             CCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCAGCCACTGCACCTACAAGACCGC
                                                                                                                                                                                                                                                                          CCACCACTGCTACAGTCACCACCACCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       91.7%;
ilarity 97.1%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1856.6;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NOVEL SECRETED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        54;
```

2209

N

1609

1669 694 1729

574

634

1789

514

1909

454 1849 1969

2029 334 2089

214

274

```
1488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1548
1775
                                                                            1715
                                                                                                                                                        1655
                                                                                                                                                                                                                                      1595
                                                                                                                                                                                                                                                                                                                1535
                                                                                                                                                                                                                                                                                                                                                                                              1475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      755
                                                                                                                                                                                                                                                                                                                                                         831
                                                                                                                                                                                                                                                                                                                                                                                                                                     891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    951
                                     642
                                                                                                                   651
                                                                                                                                                                                               711
                                                                                                                                                                                                                                                                             771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCA 1054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCCACCCAAACTGGATCCTACAGCCAAGCTCCAAGTCATATAGCCAACAGAGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCCACTAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGGCAGGGGAAGAGAGGGGGATTTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTACGGGCAGCAGATTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCCAACAGAGCAGCA
ATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCC 1834
                                                                                                                                                                                                                        GAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAAACCAGAACTTCGCCTGGAGAACAGAGT 165-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTANAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCAC 1414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACCCACTGCCAAGGCTGCCGTGGAATGGTTTGTTGGGAAAGATTTTCAAGGGAGCAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAAC 1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTACCTGGACAAGGAAACAGGAAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACC 1294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACA 1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACT 1174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACA 1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACGCGGTGGAATGG---GCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGAGTCTGGAGGATTTTCCCGGACCAGGAGAGAACCCGGAGCATGAGTGGCCCTGATAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCTACGGGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGC
                                                           GTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGG 1774
                                                                                                                                                        GCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGG 171
                                                                                                                                                                                                 GAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGT
                                                                                                                                                                                                                                                                           GAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTG
                                                                                                                                                                                                                                                                                                                GAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTG 159
                                                                                                                                                                                                                                                                                                                                                                                                CTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAA 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTC 1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACT
                                       GTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGG
                                                                                                                                                                                                                                                                                                                                                           CTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACA
                                                                                                                                                                                                                                                                                                                                                           772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       754
                                       583
                                                                                                                     643
                                                                                                                                                                                                 652
                                                                                                                                                                                                                                                                                                                                                                                                                                       832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                Ş
                                                     밁
                                                                                            Ś
                                                                                                                                     맑
                                                                                                                                                                    5
```

8 8 8

ફ 밁 ð 닭 δ 밁 δ 밁 S 밁 S 밁 5 밁 8 밁

146

GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGA

120 205

GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG

61

S

묽

श

8 8 8 8 8 8

밁

```
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 1074
LENGTH: 1988
TYPE: DNA
CORGANISM: Homo sapiens
US-10-094-749-1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 7
US-10-094-749-1074
                                                                                                                                                                                                                                                                                                           APPLICANT: OTSUKA, KAORU
APPLICANT: NAGAI, KEJICHI
APPLICANT: IRIE, RYOTARO
APPLICANT: TAMECHIKA, ICHIRO
APPLICANT: TAMECHIKA, ICHIRO
APPLICANT: SEKI, NAOHIKO
APPLICANT: OTSUKA, MOTOYUKI
APPLICANT: NAGAHARI, KENJI
APPLICANT: NAGAHARI, KENJI
APPLICANT: NAGAHARI, KENJI
APPLICANT: NAGHARI, KENJI
APPLICANT: NASUHO, YASUHIKO
TITLE REFERENCE: 084335/0160
CURRENT APPLICATION NUMBER: US/10/094,749
CURRENT APPLICATION NUMBER: US/10/094,749
CURRENT FILING DATE: 2002-03-12
PRIOR APPLICATION NUMBER: 60/350,435
PRIOR FILING DATE: 2001-09-14
NUMBER OF SEQ ID NOS: 3381
PRIOR FILING DATE: 2001-09-14
NUMBER: DESCRIPTION SEQ ID NOS: 3381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1074, Application US/10094749 Publication No. US20030219741A1
                                                                                                                            Query Match
Best Local Similarity
Matches 1831; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1835 GTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAGGAAGACGAGGTGGCCCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2015 GACCCCGCAGA 2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1955 GAAAAATGGATAAAGGCGAGCACCGTCAGGAGAGCGCAGAGATCGGCCCTACTAGATGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          342
                 86
                                                                                       26
GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG 145
                                                                           AAGGAGAGAAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCGCAGAGATCGGCCCTACTAGATGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAAGAAGACGTGGAGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGGAGAAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YAMAMOTO, JUI
ISONO, YUUKO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WAKAMATSU, AI
SATO, HIROYUKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTSUKI, TETSUJI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUGIYAMA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ISHII, SHIZUKO
                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YURI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TAKAO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JUN-ICHI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOMOYASU
                                                                                                                                             81.6%;
91.5%;
                                                                                                                          Score 1652.4;
Pred. No. 0;
0; Mismatches
                                                                                                                            0
                                                                                                                                                                 DB 17;
                                                                                                                            1;
                                                                                                                                Indels 168;
                                                                                                                                                                 Length 1988;
                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1894
                                                                                           85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                523
                                                      60
```

```
음 성
                                  밁
                                                ঠ
                                                                 밁
                                                                                   र्
                                                                                                          밁
                                                                                                                       ঠ
                                                                                                                                         밁
                                                                                                                                                            S
                                                                                                                                                                                 В
                                                                                                                                                                                                5
                                                                                                                                                                                                                  망
                                                                                                                                                                                                                                     श्च
                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                       ક
                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                        र्
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
1033
               1226
                                                                                        1106
                                                    1166
                                                                                                                            1046
                                   973
                                                                      913
                                                                                                           853
                                                                                                                                              793
                                                                                                                                                                 986
                                                                                                                                                                                                                                                                            908
                                                                                                                                                                                  733
                                                                                                                                                                                                    926
                                                                                                                                                                                                                       673
                                                                                                                                                                                                                                         966
                                                                                                                                                                                                                                                           613
                                                                                                                                                                                                                                                                                                553
                                                                                                                                                                                                                                                                                                                746
                                                                                                                                                                                                                                                                                                                                   493
                                                                                                                                                                                                                                                                                                                                                    989
                                                                                                                                                                                                                                                                                                                                                                       433
                                                                                                                                                                                                                                                                                                                                                                                         626
                                                                                                                                                                                                                                                                                                                                                                                                           423
                                                                                                                                                                                                                                                                                                                                                                                                                             566
                                                                                                                                                                                                                                                                                                                                                                                                                                                423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                    CTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAAC
                                                                               ACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATC
                                                                                                                    GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG
                                                                                                                                                                                                                     CCACTAGTTACCCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGGCCAAC
                                                                                                                                                                                                                                                                                                                                            CGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAGCAGCAGCAGCAGCCACTGCACCTA 445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATACTACTCCAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTG 325
        TGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCT
                                            TGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAAACCTGGGCAACCCA
                                                                                                                                                         GGGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTG
                                                                                                                                                                                 CTGATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGC
                                                                                                                                                                                             CTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGC
                                                                                                                                                                                                                                                          CCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                      GGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCTACCAGCTATTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTATGATACCACCACTGCTACAGTCACCACCCAGGCCTCCTATGCAGCTCAGTCTG
                                                                      ACTOTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATC
                                                                                                          GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG
                                                                                                                                              GGGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCCTG
                                                                                                                                                                                                                                                                             AGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTG
                                                                                                                                                                                                                                                                                                                                   CGAGCAGCTATGGACAGCAGGGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGG 505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTATGATACCACCACTGCTACAGTCACCACCACCAGGCCTCCTATGCAGCTCAGTCTG 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT: 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGA 180
               1285
                                 1032
                                                    1225
                                                                                                                                                                                                                                                                                                                                                   745
                                                                                                                                                                                                                                                                                                                                                                                        685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                565
                                                                                                                            1105
                                                                                                                                                                1045
                                                                                                                                                                                                                                                                                                                805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                      972
                                                                                                          912
                                                                                                                                              852
                                                                                                                                                                                  792
                                                                                                                                                                                                   985
                                                                                                                                                                                                                      732
                                                                                                                                                                                                                                        925
                                                                                                                                                                                                                                                          672
                                                                                                                                                                                                                                                                            865
                                                                                                                                                                                                                                                                                              612
                                                                                                                                                                                                                                                                                                                                   552
                                                                                                                                                                                                                                                                                                                                                                      492
                                                                                                                                                                                                                                                                                                                                                                                                         432
                                                                                                                                                                                                                                                                                                                                                                                                                                               422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                           밁
                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
```

```
1693
                                                                                                                                                                                                                                   1633
                                                                                                                  1946
                                                                                                                                                                                                1886
                                                                                                                                                                                                                                                                          1826
1813
                                                                                                                                                                                                                                                                                                                 1573
                                                                                                                                                                                                                                                                                                                                                                                              1513
                                                                                                                                                                                                                                                                                                                                                                                                                                   1706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1286
                    AGATGCAGAGACCCCGCAGA
                                                                                                GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACT
                                                                                                                                                                              GCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAAGAGGACGTG
                                                                                                                                                                                                                                                           GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTG
                                                                                                                                                                                                                                                                                                                 GCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                                                       GCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                                                                                                            CGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                   CGCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAACAGAGTGCAACCAGTGTAAGGCCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCGAGCTGGAGACTGGCAGTGTCCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGA 1645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCCGTGGAGGAGATAGAGGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACCACTCCGTGGAGGTCCAGGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAGCAAACTTAAAGTCTCCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAG
AGATGCAGAGACCCCGCAGA
                                                                           GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCGCAGAGATCGGCCCTACT
                                                                                                                                                         GCCCTGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTG
                                                                                                                                                                                                                                     GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGAGGTCCTGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTTGATGGAAAGATTTTCAAG 1345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCTGCCACCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCC
1832
                                    2025
                                                                                                                                                                                            1945
                                                                                                                                                                                                                                                                          1885
                                                                                                                                                                                                                                                                                                                                                     1825
                                                                                                                                                                                                                                                                                                                                                                                                                                   1765
                                                                                                                  2005
                                                                                                                                                       1752
                                                                                                                                                                                                                                     1692
                                                                                                                                                                                                                                                                                                                 1632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1525
                                                                           1812
                                                                                                                                                                                                                                                                                                                                                                                            1572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1405
```

RESULT 8
US-10-425-115-182496
; Sequence 182496, Application US/10425115
; Publication No. US20040214272A1
; GENERAL INFORMATION:
; APPLICANT: LA ROSA, Thomas J.
; APPLICANT: Kovalic, David K.
; APPLICANT: Zhou, Yihua
; APPLICANT: Cao, Yongwei
; TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules
; TITLE OF INVENTION: Plants
; TITLE OF INVENTION: US/10/425,115
; CURRENT APPLICATION NUMBER: US/10/425,115
; CURRENT APPLICATION NUMBER: US/10/425,115
; CURRENT FILING DATE: 2003-04-28
; NUMBER OF ERG ID NOS: 369326
; SEQ ID NO 182496
; LENGTH: 763
; TYPE: DNA
 ORGANISM: Zea mays

Associated With

```
RESULT 9
US-10-198-846-9847
US-10-198-846-9847, Application US/10198846
; Sequence 9847, Application US/10198846
; Publication No. US20030099974A1
; GENERAL INFORMATION:
; APPLICANT: Lilite, James
; APPLICANT: Wang, Yongyao
; APPLICANT: Wang, Youzhen
; APPLICANT: Steinmann, Kathleen
; APPLICANT: Steinmann, Kathleen
; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, ANI
; TITLE OF INVENTION: THERAPY OF BREAST CANCER
                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                   र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ई
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; OTHER INFORMATION: Clone US-10-425-115-182496
                                                                                                                                                                                                                                             ક
                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: unsure
LOCATION: (1)..(763)
OTHER INFORMATION: unsure at all n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                 592
                                                                                                                                                                                                                                                                                                                                                                              569
                                                                                                                                                                                                                                                                                                                                                                                                           532
                                                                                                                                                                                                                                                                                                                                                                                                                                         509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 112
                                                                                                                                                                                                                                                   689
                                                                                                                                                                                                                                                                                     652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 149
                                                                                                                                                                                                                        712
                                                                                                                                                                                                                                                                                                                629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGGCACTCAGCCTTATCCAGCCTATGGGCAGCAGCAGCAGCCACCCCACCAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCACTCCAACTGCCCCGCAGGCGTACAGCCAGCCTGTGCAGGGCTATGGCACTGGGACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCCAGGCTCAGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGCACCTGCAGCCAGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                ACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACCACAGGATGGTAACAAGCCTGCTGAGACTAGTCAACCTCAATCTAGCACAGGGGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGGCACCCAGCCTACCCCACCTATGGCCAGCCAACAGCCACCGCACCTACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGACAGCACCACTGCTACAGTCACCACAACGCAGGCCTCTTACGCAGCTCAGACTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGATACCACCACTGCTACAGTCACCACCACCAGGCCTCCTATGCAGCTCAGTCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTACTCCAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCGAGAAAATGGCGTCCACGGATTACAGTACCTATAGTCAAGCTGCAGCCCAGCAGGGCT
                                                                                                                                                                                                                                        GCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCA
                                                                                                                                                                                                                                                                                  CACAGCCGACTAGNTACGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAGCCGA
                                                                                                                                                                                                                                                                                                           CACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCCTATGGGCAACCGA
                                                                                                                                                                                                                                                                                                                                               GCTACCCAATGCAGCCAGTCACCGCACCTCCATCTTATCCTCCTACCAGCTACTCCTCTTT
                                                                                                                                                                                                                                                                                                                                                                 GCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTACCAGCTATTCCTCTA
                                                                                                                                                                                                                                                                                                                                                                                                              ATAACCAACCCAGCCTAGGATATGGACAGAGTAACTACAGCTATCCCCAGGTACCTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGCCACCTACGGGCAGACTGCATATGCAACTTCTTACGGACAGCCTCCCACTGGTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AACAAAGCTATGGAACCTATGGACAGCCTACTGATGTCAGCTATACTCAGGCTCAGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAGTGCTTACACCGCCCAGCCAACTCAAGGATATGCACAGACCACCCAGGCATATGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31.2%;
92.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ID: MRT4577_98018C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 631; DB 18;
Pred. No. 9.3e-174;
0; Mismatches 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                   AND METHODS PREVENTION,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                     740
                                                                                                                                                                                                                        763
                                                                                                                                                                                                                                                                                                                  889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             111
                                                                                                                                                                                                                                                                                                                                                 651
                                                                                                                                                                                                                                                                                                                                                                              628
                                                                                                                                                                                                                                                                                                                                                                                                              591
                                                                                                                                                                                                                                                                                                                                                                                                                                         895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88
```

RESULT 10 US-09-864-761-8001

Sequence 8001, Application US/09864761 Patent No. US20020048763A1 GENERAL INFORMATION:

APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC /
TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
FILE REFERENCE: Aecmica-X-1
CURRENT APPLICATION NUMBER: US/09/864,761
CURRENT FILING DATE: 2001-05-23
PRIOR APPLICATION NUMBER: US 60/180,312

ACID

PROBES

USEFUL

FOR

```
; FILE REFERENCE: MRI-049
; CURRENT APPLICATION NUMBER: US/10/198,84
; CURRENT ETLING DATE: 2002-07-18
; PRIOR APPLICATION NUMBER: 60/306,220
; PRIOR FILING DATE: 2001-07-18
; NUMBER OF SEQ ID NOS: 14084
; SOFTWARE: FASESEQ for Windows Version 4.
; SEQ ID NO 9847
; SEQ ID NO 9847
; LENGTH: 2299
; TYPE: DNA
; ORGANISM: Homo Sapiens
US-10-198-846-9847
                                                                                     5
                                                                                                                            밁
                                                                                                                                                       Ś
                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         片
                      S
                                                             밁
                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 28.1%; Symptotic Similarity 100.0%; Natches 570; Conservative 0;
                                                                                                                                                                                             1432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1132
 1612
                                                                                                                                                                                                                             1408
                                                                                                                                                                                                                                                              1372
                                                                                                                                                                                                                                                                                            1348
                                                                                                                                                                                                                                                                                                                             1312
                                                                                                                                                                                                                                                                                                                                                             1288
                                                                                                                                                                                                                                                                                                                                                                                              1252
                                                                                                                                                                                                                                                                                                                                                                                                                            1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1072 GGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1048 GGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGAC
 CGAGCTGGAGACTGGCAGTGTCCCAATCCG
                 CGAGCTGGAGACTGGCAGTGTCCCAATCCG
                                                                                 CCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCAC
                                                                                                                              GGAGGTCCTGGGGACCCATGGGTCGCATGGGAGGCCCGTGGAGGAGATAGAGGAGGCTTC
                                                                                                                                                    GGACGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTC
                                                                                                                                                                                             CTGCCACCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCA
                                                                                                                                                                                                                      CTGCCACCCCGTGAGGGCAGAGGCATGCCACCACTCCGTGGAGGTCCAGGAGGCCCA
                                                                                                                                                                                                                                                                                              AGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGT
                                                                                                                                                                                                                                                                                                                              GAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGG
                                                                                                                                                                                                                                                                                                                                                             GAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGG
                                                                                                                                                                                                                                                                                                                                                                                              ATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTAT
                                                                                                                                                                                                                                                                                                                                                                                                               ATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCAGACTTCTTTAAGCAGTGTGGGGTTGTTTAAGATGAACAAGAGAACTGGGCAACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTG
                                                               CCTCCAAGAGGACCCCGGGGGTTCCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 570; DB 14;
Pred. No. 9.9e-156;
0; Mismatches 0;
                                1617
 1641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                               1587
                                                                                                                                                                                                                                                                                                                                                           1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1107
                                                                                                                                 1551
                                                                                                                                                                1527
                                                                                                                                                                                                1491
                                                                                                                                                                                                                               1467
                                                                                                                                                                                                                                                               1431
                                                                                                                                                                                                                                                                                                1407
                                                                                                                                                                                                                                                                                                                                1371
                                                                                                                                                                                                                                                                                                                                                                                               1311
                                                                                                                                                                                                                                                                                                                                                                                                                              1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1227
                                                                  1611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
```

```
밁
                                                      र्
                                                                                                                              밁
                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                            र्
                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANIAM: HOMO BAPIENS
PEATURE:
OTHER INFORMATION: MAP TOTHER INFORMATION: EXPREOTHER INFORM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Ann
SEQ ID NO 8001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR FILING DATE: 2001-01-29
NUMBER OF SEQ ID NOS: 49117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Sir
hes 521;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OR APPLICATION NUMBER: PCT/US01/00670
OR FILING DATE: 2001-01-30
OR APPLICATION NUMBER: US 60/234,687
OR FILING DATE: 2000-09-21
OR APPLICATION NUMBER: US 09/608,408
OR APPLICATION NUMBER: US 09/774,203
OR APPLICATION NUMBER: US 09/774,203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OR APPLICATION NUMBER: PCT/US01/00669
OR FILING DATE: 2001-01-30
OR APPLICATION NUMBER: PCT/US01/00665
OR FILING DATE: 2001-01-30
OR APPLICATION NUMBER: PCT/US01/00668
OR FILING DATE: 2001-01-30
OR APPLICATION NUMBER: PCT/US01/00663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 2001-01-30
APPLICATION NUMBER: PCT/US01/00662
FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 2000-10-04
APPLICATION NUMBER: US 60/236,359
FILING DATE: 2000-09-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 60/207,456 FILING DATE: 2000-05-26 APPLICATION NUMBER: US 09/632,366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: PCT/US01/00661 FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: PCT/US01/00664 FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/US01/00667 FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: PCT/US01/00666 FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: GB 24263.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING
      189
                                                                   184
                                                                                                                              129
                                                                                                                                                                                        124
                                                                                                                                                                                                                                                     69
                                                                                                                                                                                                                                                                                                                   64
                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                           4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Annomax Sequence Listing
                                      GTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCCAGACCGCCTATGCAACCTTCT
                                                                                                                                                                 GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGAT
                                                                                                                                                                                                                                                                                               AGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATAT 123
                                                                                                                                                                                                                                                                                                                                                                                                                          GACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTAT
                                                                                                                                                                                                                                                     AGCCAAGCTGCAGCGCAGCAGGCTACAGTGCTTACAACACCCAGCCCACTCAAGGATAT
                                                                                                                                                                                                                                                                                                                                                                             GGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCATCCATGGATTACAGTACCTAT
GTCAGCTATACCCAGGCTCAGACCACTGCAATCTATGGGCAGACCGCCTATGCAACTTCT
                                                                                                                          GCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCATTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N: MAP TO ACO18774.3

N: EXPRESSED IN ADULT LIVER, SIGNAL = 2.1

N: EXPRESSED IN BRAIN, SIGNAL = 2.8

N: EXPRESSED IN PLACENTA, SIGNAL = 3.4

N: EXPRESSED IN FETAL LIVER, SIGNAL = 3.1

N: EXPRESSED IN BONE MARROW, SIGNAL = 4.1

N: EXPRESSED IN HELA, SIGNAL = 2.9

N: EXPRESSED IN HELA, SIGNAL = 2.9

N: EXPRESSED IN HEART, SIGNAL = 1.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000-02-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 514.4; DB 9;
Pred. No. 1e-139;
0; Mismatches 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Engine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        vers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
      248
                                                                243
                                                                                                                          188
                                                                                                                                                                                                                                                     128
                                                                                                                                                                                                                                                                                                                                                                             83
                                                                                                                                                                                                                                                                                                                                                                                                                                       63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
```

```
APPLICANT: Hyseq, Inc.
APPLICANT: Hyseq, Inc.
TITLE OF INVENTION: NOVEL NUCLBIC ACID SEQUE
TITLE OF INVENTION: FROM VARIOUS CDNA LIBRA
FILE REBERENCE: 2041-756
CURRENT APPLICATION NUMBER: US/09/918,995
CURRENT FILING DATE: 2001-07-30
PRIOR APPLICATION NUMBER: US/09/235,076
PRIOR APPLICATION NUMBER: US/09/235,076
PRIOR FILING DATE: 1999-01-20
NUMBER OF SEQ ID NOS: 38054
SOPTWARE: FASE/SEQ for Windows Version 3.0
SEQ ID NO 27690
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                     S
                          δ
                                                          밁
                                                                                   8
                                                                                                                   문
                                                                                                                                               S
                                                                                                                                                                                  뮍
                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-918-995-27690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 11
US-09-918-995-27690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 27690, Application US/09918995 Publication No. US20030073623A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 550

TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
RAME/KEY: misc_feature
LOCATION: (1) ... (550)
OTHER INFORMATION: n = A
                                                                                                                                                                                                                                                                                                                                                               hes 515;
                             1627
                                                                                                                                                                                                                                                                         1387
                                                                                        1567
                                                                                                                                                    1507
                                                                                                                                                                                                             1447
                                                                                                                                                                                                                                                                                                                                 1327 GATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCA
                                                                                                                                                                                142
 322
                                                           262
                                                                                                                    202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              489
                                                                                                                                                                                                                                            82
                                                                                                                                                                                                                                                                                                       22
                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                  AACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGC
                                                                             GGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGA
                                                                                                                                       GGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGGTTCCCCGAGGGAACCCCTCT
                                                                                                                                                                                                                                                                         ATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCT
                                                                                                                                                                                CGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGGTCGCATGGGAGGCCGT
                                                                                                                                                                                                           CGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGACCCATGGGTCGCATGGGAGGCCGT
                                                                                                                                                                                                                                            ATGAACAGTATGCGGTGTGGCCTGCCACCCGTGAGGGCAGAGGCATGCCACCACCACTC
                                                                                                                                                                                                                                                                                                       GAGAGGGCAATTCTTTCAGGGAGCAAACTTANAGTCTCCCTTGCTCGGAAGAAGCCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGCCAGTAGCCACTGCACCTACAAGACTGCAGAATGGAAACAAGCCCACTGAGACTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGCCAGCAGCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAG
                                                           GGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCTCCTATGCAGCTCAATCTGCATATGGCACTCAGCCTGCTTATCCAGCTTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTCCAGGGGTATGGCTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                               25.1%;
97.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                        A,T,C
                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                               ç
                                                                                                                                                                                                                                                                                                                                                               Pred. No. 6e-
); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                             Score 508.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACID SEQUENCES
CDNA LIBRARIES
                                                                                                                                                                                                                                                                                                                                                                                 6e-138;
                                                                                                                                                                                                                                                                                                                                                                                             DB 10;
                                                                                                                                                                                                                                                                                                                                                               13;
                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         535
                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                             1506
                                                                                                                                                                                                                                                                                                                                   1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     303
                             1686
                                                                                      1626
                                                                                                                                                  1566
                                                                                                                                                                                                                                                                         1446
381
                                                           321
                                                                                                                    261
                                                                                                                                                                                201
                                                                                                                                                                                                                                           141
                                                                                                                                                                                                                                                                                                       81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         308
                                                                                                                                                                                                                                                                                                                                                               0
```

FOR

```
FILE REFERENCE: 20411-756
CURRENT APPLICATION NUMBER: US/09/918,995
CURRENT FILING DATE: 2001-07-30
PRIOR APPLICATION NUMBER: US/09/235,076
PRIOR FILING DATE: 1999-01-20
NUMBER OF SEQ ID NOS: 38054
SOFTWARE: FASESEQ for Windows Version 3.0
SEQ ID NO 9557
LENGTH: 568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 12
US-09-918-995-9557
                 ঠ
                                                   문
                                                                                ঠ
                                                                                                                     밁
                                                                                                                                                  S
                                                                                                                                                                                       밁
                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 9557, Application US/09918995
Publication No. US20030073623A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
NAME/KEY: misc_feature
LOCATION: (1)...(568)
OTHER INFORMATION: n = A,T,C
3-09-918-995-9557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Hyseq, Inc.
TITLE OF INVENTION: NOVEL NUCLEIC
TITLE OF INVENTION: FROM VARIOUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
les 515; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1747
                   1352
                                                                                  1292
                                                                                                                                                     1232
                                                                                                                                                                                                                        1172
                                                                                                                                                                                                                                                                                           1112
                                                                                                                                                                                                                                                                                                                                                            1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               382
                                                                                                                                                                                                                                                                                                                           150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              502
                                                                                                                    330
                                                    390
                                                                                                                                                                                       270
                                                                                                                                                                                                                                                         210
                                                                                                                                                                                                                                                                                                                                                                                                                           992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              932
                                                                                                                                                                                                                                                                                                                                                                                            93
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGAC 1854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCCTCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                               GAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGAC 1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGCGGNGAGGAAGAGGTGGCCTCATGGATCGTGGTCCCCGGTGGAATGTTCATAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGCGGGGAAGAAGAGCTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGT
AACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGC 1411
                                                                                                                                                                                                                                                                                ACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAG 117:
                                                                                                                                                                                                                                                                                                                                              CCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTG 1111
                                                                                                                                                                                                                                                                                                                                                                                             GAGGACGCGGTGGAATGG---GCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGAC 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCCGTGTGGTGCAATTCGGNGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGNGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCGGGGCAGGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTCCTCCCGCCACCCTTTCCGCCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGC
                                                                                                                                                                                                                                                                                                                            CCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTG
                                                                                      ACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCA 135:
                                                                                                                       ACATCTACCTGGACAAGGAAACAGGAAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAG
                                                                                                                                                       ACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAG 129:
                                                                                                                                                                                                                        ACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCC 123:
                                                                                                                                                                                                                                                           ACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAG
                                                                                                                                                                                     ACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23.7%;
larity 95.5%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 480.2;
Pred. No. 1.1e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACID SEQUENCES
CDNA LIBRARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.1e-129;
ches 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  441
                                                                                                                                                                                          329
                                                      449
                                                                                                                       389
                                                                                                                                                                                                                                                             269
                                                                                                                                                                                                                                                                                                                              209
```

```
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEF
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEF
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES US/09/864,761
CURRENT APPLICATION NUMBER: US/09/864,761
CURRENT FILING DATE: 2001-05-23
PRIOR APPLICATION NUMBER: US 60/180,312
PRIOR FILING DATE: 2000-02-04
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR APPLICATION NUMBER: US 00/09-27
PRIOR APPLICATION NUMBER: US 60/236,359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 13
US-09-864-761-7766/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                        SEQ ID NO 7766
LENGTH: 505
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 7766, Application Patent No. US20020048763A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US 60/234,687
PRIOR FILING DATE: 2000-09-21
PRIOR APPLICATION NUMBER: US 09/608,408
PRIOR FILING DATE: 2000-06-30
PRIOR APPLICATION NUMBER: US 09/774,203
PRIOR FILING DATE: 2001-01-29
PRIOR FILING DATE: 2001-01-29
PRIOR SEQ ID NOS: 49117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Penn, Sharron G. APPLICANT: Rank, David R.
                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Annomax
OTHER INFORMATION: MAP TO AL162311.1
OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 2.5
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2.5
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 2
OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 3.4
OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 4.7
OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 4.7
OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 2.1
                                                                                                                                                                                                                                                                       ORGANISM: Homo FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OR FILING DATE: 2001-01-30
OR APPLICATION NUMBER: PCT/USO1/00665
OR FILING DATE: 2001-01-30
OR APPLICATION NUMBER: PCT/USO1/00668
OR APPLICATION NUMBER: PCT/USO1/00663
OR APPLICATION NUMBER: PCT/USO1/00663
OR APPLICATION NUMBER: PCT/USO1/00662
OR APPLICATION NUMBER: PCT/USO1/00661
OR APPLICATION NUMBER: PCT/USO1/00661
OR APPLICATION NUMBER: PCT/USO1/00670
OR APPLICATION NUMBER: PCT/USO1/00670
OR FILING DATE: 2001-01-30
OR APPLICATION NUMBER: PCT/USO1/00670
OR FILING DATE: 2001-01-30
OR FILING DATE: 2001-01-30
OR FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: PCT/US01/00666
FILING DATE: 2001-01-30
APPLICATION NUMBER: PCT/US01/00667
FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: PCT/US01/00664
FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: PCT/US01/00669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               450 AACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGC-GGGTGGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGA 1470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACCCGTGAGGGCAGAGGCATGCCACCACTTTCGTGAGGTCCAGGAGGCCCCAGA
                                                                                                                                                                                                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence Listing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US/09864761
                                                                                                                                                                                                                                                                                                                                                                                                                          Engine
                                                                                                                                                                                                                                                                                                                                                                                                                             vers.
                                                                                                                                                         = 2.6
                                                                                                                                                                                                                   1)
                                                                   4.8
                                                                                                                                                                                                                   .
5
                                                                                                                             2.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USEFUL
```

```
Sequence 3868, Application US/09918995
Publication No. US20030073623A1
GENERAL INFORMATION:
APPLICANT: Hyseq, Inc.
ITILE OF INVENTION: NOVEL NUCLEIC ACID SEQUENCES OBTITILE OF INVENTION: FROM VARIOUS CDNA LIBRARIES
FILE REFERENCE: 2041-756
CURRENT APPLICATION NUMBER: US/09/918,995
CURRENT APPLICATION NUMBER: US/09/918,995
CURRENT FILING DATE: 2001-07-30
PRIOR APPLICATION NUMBER: US/09/235,076
PRIOR APPLICATION NUMBER: US/09/235,076
PRIOR FILING DATE: 1999-01-20
NUMBER OF SEQ ID NOS: 38054
SOFTWARE: FASESEQ for Windows Version 3.0
ક
                             밁
                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 14
US-09-918-995-3868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-864-761-7766
                                                                                                                                                                                                        SEQ ID NO 3868
LENGTH: 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Loc
Matches
                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                        TYPE: DNA
ORGANISM: Homo
-09-918-995-3868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              162 AACCTATGGACAGCCCACTGATGTCAGCCTATACCCCAGGCTCAGACCCACTGCAACCTATGG 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   al Similarity
486; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94
 28
                                                              25
                                                                                               400;
                                                 GAAGGAGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCAGTCACTGCACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAG 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCAC 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           G-----
GGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATAT 144
                             GAAGGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCA 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCTACAGTCACCACCACCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCC 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCCCAGGCATACAGCCAGCCTGTCCAGGGGTGTGGCACTGGTGCTTATGATACCACCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTACTCCAACTGC 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGA 699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCTTATCCAGCCTATGGGCAGCAGCAGCAGCACCTGCACCTACAAGACCGCAGGATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TECTACAGTCACCACCACCCAGGCCTCC-AAGCTGCTCAGTCTGCATATGGCACTCAGCC 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCTTACCCAGCCTATGGGCAGCAGCCAGCACCTGCACCTACAAGACCATAGGATGG
                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                       sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATGCTACTCCAACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20.3%;
                                                                                                          19.7%;
99.8%;
                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                          Score 399.4; DB 10
Pred. No. 4.1e-106;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 411.6; DB 9;
Pred. No. 1.2e-109;
D; Mismatches 19;
                                                                                                                       DB 10;
                                                                                                                                                                                                                                                                                                                                                                OBTAINED
                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  505;
                                                                                                                           401;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   33,
                                                                                          0;
                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    446
                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             461
                                                            84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        394
                                                                                          0
```

```
CURRENT FILING DATE: 2001-05-23
PRIOR APPLICATION NUMBER: US 60/180,312
PRIOR PILING DATE: 2000-02-04
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR PILING DATE: 2000-02-04
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR RILING DATE: 2000-08-03
PRIOR APPLICATION NUMBER: US 60/32,366
PRIOR APPLICATION NUMBER: US 60/32,366
PRIOR APPLICATION NUMBER: US 60/236,359
PRIOR APPLICATION NUMBER: US 60/236,359
PRIOR PILING DATE: 2000-09-27
PRIOR PILING DATE: 2001-01-30
PRIOR PILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00667
PRIOR PILING DATE: 2001-01-30
PRIOR PILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00669
PRIOR APPLICATION NUMBER: PCT/US01/00662
PRIOR APPLICATION NUMBER: PCT/US01/00661
PRIOR APPLICATION NUMBER: PCT/US01/00662
PRIOR PRIOR PRILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00661
PRIOR APPLICATION NUMBER: PCT/US01/00661
PRIOR APPLICATION NUMBER: PCT/US01/006670
PRIOR PRIOR PRIOR PCT/US01/00669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 15
US-09-864-761-24705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 24705, Application US/09864761 Patent No. US20020048763A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY FILE REFERENCE: Acomica-X-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Penn, Sharron G.
OR APPLICATION NUMBER: US 60/234,687
OR FILING DATE: 2000-09-21
OR APPLICATION NUMBER: US 09/608,408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTTATGATACCACCACCTGCTACAGTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATACTACTCCAACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCCAGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGCCATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTTATGATACCACCACTGCTACAGTCACCACCCAAGCCTCCTATGCAGCTCAGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TATACTACTCCAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rank, David R.
Hanzel, David K.
Chen, Wensheng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
```

```
FEATURE:

PEATURE:

OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 2.1

OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 2.8

OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 3.4

OTHER INFORMATION: EXPRESSED IN PETAL LIVER, SIGNAL = 3.4

OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 3.4

OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 4.1

OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2.4

OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 2.9

OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 1.6

OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 1.6

OTHER INFORMATION: STISSPROT HIT: OD1844, EVALUE 3.00e-28

OTHER INFORMATION: STISSPROT HIT: BE781742.1, EVALUE 0.00e+00

OTHER INFORMATION: EST_HUMAN HIT: BE781742.1, EVALUE 0.00e+00
                                                                                          닭
                                                                                                                                δ
                                                                                                                                                                                밁
                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
Search completed: February 20, 2005, 22:47:56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR FILING DATE: 2001-01-29

NUMBER OF SEQ ID NOS: 49117

SOFTWARE: Annomax Sequence Listing Engine vers. 1.1

SEQ ID NO 24705

LENGTH: 399

TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 19.0%; Score 384.6; DB 9; Best Local Similarity 97.7%; Pred. No. 8.7e-102; Matches 390; Conservative 0; Mismatches 9;
                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          157
                                                                                          361
                                                                                                                                       397
                                                                                                                                                                                  301
                                                                                                                                                                                                                               337
                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                          277
                                                                                                                                                                                                                                                                                                                                                                                                 217 TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97
                                                                                                                                                                                                                                                                                                                                                                  ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCGAGCAGCAGGGCTACAGTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC 156
                                                                                          CAGCCTGCTTATCCAGCTTATGGGCAGCAGCCAGTAGCC 399
                                                                                                                                                                                                                 ACCACTGCTACAGTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACT 396
                                                                                                                                                                                                                                                                                                              ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TATGGAACCTATGGACAGCCCATTGATGTCAGCTATACCCAGGCTCAGACCACTGCAATC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TACAACACCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGGCATCCATGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCT
                                                                                                                       CAGCCTGCTTATCCAGCCTATGGGCAGCAGCAGCAGCAGCC 435
                                                                                                                                                                                  ACCACTGCTACAGTCACCACCCAGGCCTCCTATGCAGCTCAATCTGCATATGGCACT 360
                                                                                                                                                                                                                                                                            ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 399;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
```

E

```
Regult
No.
                                                                                                                                                                                                                                                                                                                                                                                          Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Run
                                                                                                                                                                                                                                                                                                                                             Database
                                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OM nucleic -
                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                  Searched
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       on:
  243
243
243
243
243
243
243
                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
1940
1769.6
1769.6
1764
1558
976.8
949.8
944.2
935.4
935.4
935.4
928.4
928.4
927.8
                                                                                                                                                                                                                                                                                                                                                                                          B B
                                                                                                                           2025
2025
2009
1977
1961
1961
1961
                                                                                                                                                                                                                                                                                                                                                                                          seq length:
seq length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nucleic search, using
Query
Match
                                                                                                                                                                                                                                                                                                                                    EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                             IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-791-017A-1_COPY_8_2032
2025
1 gacggacgttgagagaacga.....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     February 20, 2005, 04:03:23 ; Search time 5981.34 Seconds (without alignments)
12886.762 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                 34239544 segs, 19032134700 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gacggacgttgagagaacga....agatgcagagaccccgcaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Copyright
                                                                                                                                                                                                                                                                     9b est3:
9b est4:*
9b est5:*
9b est6:*
9b est6:*
9b gs81:*
                                                                                                                                                                                                                                                                                                                   gb_est1:*
gb_est2:*
gb_htc:*
                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                           2000000000
2103
2093
2093
2093
2126
2073
22363
22363
22373
22107
2107
2107
2107
1008
1008
1008
1008
1008
1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GenCore version (c) 1993 - 2005
                                                                                                                                                                                                  B
                                                                                                           CR619493
CR602561
CR594868
CR610888
CR593724
CR608666
CR604639
                              BX443496
BX367687
BX462635
                                                     AK034755
AK019460
AK049743
BX325713
BX353313
BX464988
BM473356
                                                                                                                                                                  CR604952
CR608375
CR625247
                                                                                                                                                                                                                                                                                                                                                            summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ₩
                                                                                                                                                                                                                         SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mode1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5.1.6
Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                  68479088
                                                                                                                          CR610888
CR593724
                                                                                                                                                                 CR604952
CR608375
CR625247
                                                                                                                   CR608666
                                                                                                                                          CR594868
                                                                                                                                                         CR619493
                                                                                                                                                                                                Description
                                              BX443496
                                                                                                    AK034755
                                                                                                            CR604639
      full-leng full-leng
                                                                                                                  full-leng
full-leng
full-leng
                                                                                                                                         full-leng
full-leng
full-leng
full-leng
                                                                                                                                                                                                                                                                                                                                                   RESULT 1
CR604952
LOCUS
밁
            8
```

ALIGNMENTS

REFERENCE AUTHORS REFERENCE AUTHORS ACCESSION VERSION KEYWORDS SOURCE ORGANISM FEATURES COMMENT DEFINITION TITLE JOURNAL TITLE JOURNAL REMARK Query Match Best Local Similarity Matches 2025; Conserv source Web: www.genoscope.cns.fr) 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPRT 6 vector. Library was normalized. Library was constructed by Life Technologies, a Genoscope. Direct Submission Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 2157) Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished division of Invitrogen Faraday Avenue 2 (bases 1 to 2157) Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation 1600 Homo sapiens (human) CR604952.1 GI:50485759 HTC; CNSLT_CDNA. of Homo sapiens (human). CR604952 CR604952 2157 bp n full-length cDNA clone CS0DI010YI12 Conservative /organism="Homo sapiens" /mol_type="mRNA" /db_xref="taxon:9606" /clone="CSODIO10Y112" /tissue_type="Placenta Cot 2" /plasmid="pCMVSPORT_6" Location/Qualifiers 100.0%; Score 2025; 100.0%; Pred. No. 0; tive 0; Mismatches mRNA linear HTC 21-JUL-2004 2 of Placenta Cot 25-normalized B 25-normalized' ω •• Length 2157;

1 GACGGACGTTGAGAGAACGAGGAGGAAGGAAGAAAATGGCGTCCACGGATTACAGTACC

0

Indels

<u>,</u>

Gaps

0

GACGGACGTTGAGAGAACGAGGAAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACC

64

ហ

ş 밁 ঠ

961 CGTGGAGGCATGAGCAGAGGTGGGCGGGAGGAGGACGCGGTTGAATGGGCAGCGCTTGA 1020	61 TATAGCCCAAGCTTGCAGGCAGCAGGCATACAGTTCATACACCGCCCCAGCCCAAGCCCAACCCAAGCAAG
RESULT 2 CR608375 CR608375 CR608375 CR608375 CR608375 CR608375 ACCESSION VERSION CR608375 CR608375 CR608375 VERSION CR608375 CR608375 CR608375 CR608375 CR608375 ORGANISM HTC; CNSLT_CDNA. SOURCE Homo sapiens (human) ORGANISM Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.	Oy 1141 ANTSALAGITETACTCTABATESTTCTGCACACTCTTTAAGCACTTTTAAGCACTTTTAAGCACTTTTAAGCACTTTTAAGCACTTTTAAGCACTTTTAAGCACTTTAAGCACTTTAAGCACTTTAAGCACTTTAAGCACTTTAAGCACTTTAAGCACTTTAAGCACTTTAAGCACTTTAAGCACTTAAAGCACTAAAAGATTAAAGCACTTAAAAGAACTTAAAGCACTTAAAAGCACTTAAAGCACTTAAAGCACTTAAAGCACTTAAAGCACTTAAAGCACTAAAAAAAA

δ 밁 र् 밁 S

밁

음 성 밁 Ś 밁 δ 8 8 밁 ঠ 8 Ş 밁 S B S 밁 S 밁 δ 밁 S ద ક 밁 Ś 밁

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
                                                                                                                                                                  र्
                                                                                                                                                                                                                       र्
                                                                                                                                                                                                                                                                                   ş
                                                                                                                                                                                                                                                                                                                                        ঠ
    ş
                             밁
                                                      S
                                                                                     밁
                                                                                                           ঠ
                                                                                                                                      문
                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                   १
                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ई
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 2025; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bource
                                                                                                                                                                                                    365
                                                                                                                                                                                                                                                          305
     109
                              545
                                                         541
                                                                                      485
                                                                                                                481
                                                                                                                                            425
                                                                                                                                                                       421
                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                 245
                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                        185
                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                125
                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ហ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 (bases 1 to 2314)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
Unpublished
Contact : Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InvitroGen Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   lst strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
- Web : www.genoscope.cns.fr)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genoscope.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Faraday Avenue
2 (bases 1 to 2314)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                        CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACCACTGCTACAGTCACCACCACC
                                                                                                                                                                                                                                                                                                                               TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                      GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                               TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATAGCCAAGCTGCAGCGCAGCAGGCGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA
  TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                     AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT
                                                                                                                                                                       CAGCAGCCAGCACCTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT
                                                                                                                                                                                                 CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                       GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TATAGCCAAGCTGCAGCGCAGGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA
                              AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                      AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                                                                 TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCAGGCATACAGCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/mol type="mRNA"
/db xref="taxon:9606"
/clone="CSODIO19YJ24"
/tissue type="Placenta Cot 2
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   o,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 2025;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               몂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-normalized
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            u
•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ...
                                                         600
                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                             604
                                                                                     544
                                                                                                               540
                                                                                                                                            484
                                                                                                                                                                       480
                                                                                                                                                                                                   424
                                                                                                                                                                                                                                                         364
                                                                                                                                                                                                                                                                                                               304
                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                       244
                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                             184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                            밁
                                                             . ₺
                                                                                                  밁
                                                                                                                      S
                                                                                                                                                        문
                                                                                                                                                                                S
                                                                                                                                                                                                           문
                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                 1681
                                                                                                                                                                                                                                                                                                                                                                                                                                          1205
                                                                                                                                                          1505
                                                                                                                                                                                                                1445
                                                                                                                                                                                                                                          1441
                                                                                                                                                                                                                                                                      1385
                                                                                                                                                                                                                                                                                                                              1325
                                                                                                                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                                                                                                    1265
                                                                                                                                                                                                                                                                                                                                                                                                                1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1145
                                                                                                  1565
                                                                                                                                                                                                                                                                                                 1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 605
GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT
                                                            TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAAGCCT
                                                                                                                CCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                                       GGCCGTGGAGGAGATAGAGGAGGAGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCGAGGGAAC
                                                                                                                                                                                                                                CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGA
                                                                                                                                                                                                                                                                                         CCTCCAATGAACAGTATGCCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA
                                                                                                                                                                                                                                                                                                                           CCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCACTGCCACTGCCAAGGCTGCCGTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                               ATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAACAGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCCGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGACCACCCCAGTAGCATGGGTTTTATGGGCAGGAGTCTGGAGGATTTTTCCGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCAGCTACCGGCAGCAGAGTTCCATTCCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAPAGCAGCTATGGGCAGCCAGCCCACCTAGTTACCCCACCCCAAACTGGATCCTACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                          GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCGAGGGAAC
                                                                                                                                                                                                                CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGA
                                                                                                                                                                                                                                                                      CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGACGCGGTGGAATGGGCAGCGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGGAAGAGGGGGGATTTGAT
                 1740
                                                                      1680
                                                                                                                                                                                                                                         1500
                                                                                                                                                                                                                                                                                                 1440
                                                                                                                                                                                                                                                                                                                                                       1380
                                                                                                                                                                                                                                                                                                                                                                                                             1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1024
                                             1684
                                                                                                                            1620
                                                                                                                                                                                                              1504
                                                                                                                                                                                                                                                                      1444
                                                                                                                                                                                                                                                                                                                            1384
                                                                                                                                                                                                                                                                                                                                                                                    1324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1084
                                                                                                                                                        1564
                                                                                                                                                                                                                                                                                                                                                                                                                                          1264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 664
```

\$ 8	B &		ORIGIN	Bource	FEATTRES	COMMENT	REFERENCE AUTHORS TITLE JOHRNAL	JOURNAL REMARK	REFERENCE AUTHORS	VERSION KEYWORDS SOURCE ORGANISM	DEFINITION	RESULT 3 CR625247	B &	<u> </u>	g Q	B 8	B &	В
1 TATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA	1 GACGGACGTTGAGAGAACGAGGAGGAGGAGGAGAAAATGGCGTCCACGGATTACAGTACC 60	Watch 99.2%; Score 2009; DB 3; Length 2159; Local Similarity 99.9%; Pred. No. 0; nes 2022; Conservative 0; Mismatches 0; Indels 3; Gaps 1;	/clone="CSODE005YF11" /tissue_type="Placenta" /plasmid="pCMVSPORT_6"		into the Not I and ECOR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.		2 (bases 1 to 2159) 2 (bases 1 to 2159) Genoscope. Direct Submission Submitted (20-MM-2004) Genoscope	Unpublished Contact : Feng Liang Email http://fulllength.invitrog	Mukaryota; metazoa; chordata; craniata; vertebrata; suteleoscomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 2159)		full-length (human). CR625247		1981 CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA 2025	1921 ATGGGAGGAAGAAGAAGAAGGACGTGGAAGAAAATGGATAAAGGCGAGCACCGT 1980	1861 GGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAG 1920	1801 AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCCGGGGGCATGGACCGAGGT 1860	1741 GGTGGCATGCGGGAGGAGGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTC 1800	1685 GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT 1744
B &	B 8	g dg	g 49	Db Qy	dg Qy	Db Qy	d Qy	da VQ	B Q	Db Qy	B &	B 8	g 84	B &	B &	ρ Q	B &	DЬ
1141 AATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAG	1081 GGCCCACCIGTAGATCCAGATGAAGACTCIGACAACAGTGCAATTTAIGTACAAGGATTA	021	961 CGTGGAGGCATGAGCAGAGGTGGGCGGGAGGACGAGGACGCGTGGAATGGGCAGCGCTGGA	901 GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGAT	841 CAGGACCACCCCAGTAGCATGGGTTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCA	781 CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA	721 CAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCACCC	661 TCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAA	601 TCCTACCCTCCTACCAGCTATTCCTCTACACAGGCGACTAGTTATGATCAGAGCAGTTAC	541 AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA	481 AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT	421 CAGCAGCCAGCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT	361 CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG	301 CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCACTGCTACAGTCACCACCACCACTGCTACAGTCACCACCACCACCACCACCACCACCACCACCACCACCAC	241 TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCAGGCATACAGCCAG	181 GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT	121 TATGCACAGACCACCCAGGCATATGGGCAACAAGCTTATGGAACCTATGGACAGCCCACT 	70 TATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA

```
RESULT 4
CR619493
LOCUS
    REFERENCE
AUTHORS
TITLE
                                                                      ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                           1987
                                                                                                                                                                                                                                                                                                1927
                                                                                                                                                                                                                                                                                                                          1921
                                                                                                                                                                                                                                                                                                                                                       1867
                                                                                                                                                                                                                                                                                                                                                                                 1861
                                                                                                                                                                                                                                                                                                                                                                                                              1807
                                                                                                                                                                                                                                                                                                                                                                                                                                        1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1201
                                                                                                CR619493
full-length cDNA clone Cs
of Homo sapiens (human)
CR619493
CR619493.1 GI:50500300
HTC; CNSLT_cDNA.
Eukaryoča; Metazoa; Chordata; Craniata; Verto Mammalla; Eutheria; Primates; Catarrhini; Hor 1 (bases 1 to 2103)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization
                                                                        Homo
                                                                                     Homo
                                                                                                                                                                                                                                       CAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                         AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGTGGCATGCGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAAGGCTTCCCCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT
                                                                                                                                                                                                                                                                                                              ATGGGAGGAAGAAGAGGAGGACGTGGAACCTGGAAAAATGGATAAAGGCGAGCACCGT
                                                                                                                                                                                                                                                                                                                                                                  GGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTCTGGAGGAGAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCGAGGGAAC
                                                                                                                                                                                                                                                                                                                                                     GGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGCCCCCTGGACCTTTGATGGAACAG
                                                                                                                                                                                                                                                                                                                                                                                                           AGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCTCTGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCCGAGGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAG 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGAACAAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGAACAAGAGAAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAAACAGGAAAG
                                                                        sapiens
                                                                                 sapiens (human)
                                                                                                                                                                                                                                                                                              ĸĠĠĸĀĠĀĀĠĀĠĠĀĠĠĀĊĠŤĠĠĀĠĠĀĊĊŤĠĠĀĀĀĀĀŤĠĠĀŤĀĀĀĠĠĊĠĀĠĊĄĊĊĠŤ
                                                                                                                                                      2103 bp 1
CS0DI076YO21
                                         Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                                                                      mRNA
                                                                                                                                                        of Placenta
                                                                                                                                                                     linear
                                                                                                                                                        COT
                                                                                                                                                                                                                                         2031
                                                                                                                                                                                                                                                                    2025
                                           Euteleogtomi;; Homo.
                                                                                                                                                      HTC 21-JUL-2004
25-normalized
                                                                                                                                                                                                                                                                                                                                                                                                                                      1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1500
                                                                                                                                                                                                                                                                                                                        1980
                                                                                                                                                                                                                                                                                                                                                    1926
                                                                                                                                                                                                                                                                                                                                                                                                           1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
JOURNAL
               밁
                                  δ
                                                                    문
                                                                                        S
                                                                                                                           片
                                                                                                                                               S
                                                                                                                                                                                                   S
                                                                                                                                                                                                                                    멍
                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 1977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
               601
                                         649
                                                                     541
                                                                                              589
                                                                                                                           481
                                                                                                                                                                                  421
                                                                                                                                                                                                          469
                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                 409
                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                       349
                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                              289
                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                     229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1977;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4.9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished
Contact: Feng Liang Email:
http://fulllength.invitrogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Faraday Avenue
             CAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGGAGT
                               CAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGAGT
                                                                                        ACTGCACCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGAT
                                                                                                                                                                             CCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGA
                                                                                                                                                                                               CCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGA
                                                                                                                                                                                                                                                    CCAGCCTATGGGCAGCCAGCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAG
                                                                                                                                                                                                                                                                                                           GTCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTTGTTAT
                                                                                                                                                                                                                                                                                                                                                                  GCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACA
                                                                                                                                                                                                                                                                                                                                                                                                                        GCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCCAACTGCCCCCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATTACAGTACCTATAGCCAAGCTGCAGCGCAGGGCTACAGTGCTTACACCGCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGGCTACAGTGCTTACACCGCCCAG
                                                                                                                                                   TATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCCATGCAGCCAGTC
                                                                                                                                                                                                                                                                                           GTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTAT
                                                                                                                                                                                                                                                                                                                                                    GCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACA
                                                                                                                                                                                                                                                                                                                                                                                                        GCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (bases 1 to 2103)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97.6%;
llarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/mol type="mtNA"
/db_xref="taxon:9606"
/clone="CSOD1076Y021"
/tissue_type="Placenta C
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1977; D
; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     fliang@lifetech.
.com/ InVitroGen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-normalized"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ω
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .com URL :
Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1600
              660
                                         708
                                                                                              648
                                                                                                                                                                                                          528
                                                                                                                                                                                                                                                                468
                                                                                                                                                                                                                                                                                                                       408
                                                                    600
                                                                                                                           540
                                                                                                                                                     588
                                                                                                                                                                               480
                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                            348
                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                   288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
```

```
1201
                                                                                                                                                                                                                                                                                                                                                  1441
                                                                                                                                                                                                                                                                                                                                                                                      1489
                                                                                                                                                                                                                                                                                                                                                                                                                          1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1069
1789
                                     1681
                                                                                                               1621
                                                                                                                                                     1669
                                                                                                                                                                                           1561
                                                                                                                                                                                                                                1609
                                                                                                                                                                                                                                                                      1501
                                                                                                                                                                                                                                                                                                          1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTGCCGTGGAATGGTTTGATGGGAAAGATTTTTCAAGGGGAGCAAACTTAAAGTCTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGGTTGTTAAGATGAACAAGAGAACTGGGCCAACCCCATGATCCACCATCTACCTGGACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGGCAGGGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGATCCTACAGCCAAGCTCCAAGTCAATATAGCCCAACAGAGCAGCAGCTACGGGCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCATGCCACCACCCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGACGCCGGTGGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCTATGGTCAACAAAGCAGCTATGGGCAGCCAGCCTCCCACTAGTTACCCCACCCCAAACT
GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCCGGGGC 1848
                                                                                                                                                                                             CCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG
                                                                                                                                                                                                                         CCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG
                                                                                                                                                                                                                                                                                                                                                                                        GGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                            GGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTTCCGGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGA
                                                             AGAGGTGGCCCTGGTGGCATGCCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCC
                                                                                                                                                 GCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGC
                                                                                                                                                                                                                                                                        TCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGT
                                       <u>AGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCC</u>
                                                                                                                                                                                                                                                                                                          TCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGT
                                     1740
                                                                                                                 1680
                                                                                                                                                                                                                                  1668
                                                                                                                                                                                                                                                                                                              1608
                                                                                                                                                                                                                                                                                                                                                                                        1548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1008
                                                                                                                                                                                             1620
                                                                                                                                                                                                                                                                        1560
                                                                                                                                                                                                                                                                                                                                                  1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                              1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                768
```

8 8 8

중 음 중 음

유

유

중 유

밁

밁 δ 밁 S 밁 δ 밁 S 밁 δ 밁 δ 밁 Ś 片 S 밁 S 밁 á 밁 δ

```
RESULT 5
CR602561
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                  밁
                                                                   á
                                                                                                       밁
                                                                                                                                  S
                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                맑
δ
                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
REMARK
                                                                                                                                                                                                                                                   Matches 1974;
                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1849
                                      121
                                                                                                                                             109
                                                                                                            61
                                                                                                                                                                                                                  49
                                                                                                                                                                              Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)
1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 2070)

Li,W.B., Gruber,C., Jessee,J. and Polayes,D.

Full-length cDNA libraries and normalization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CR602561.1 GI:50483368
HTC; CNSLT_cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CR602561 2070 bp mRNA linear full-length cDNA clone CS0DI068YN23 of Placenta Cot of Homo sapiens (human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              division of Invitrogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (human)
                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACC
                                                                                                            CCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTAT
                                                                                                                             CCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTAT
                                                                                                                                                                                GATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAG
                                                                                                                                                                                                  GATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA 1977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA 2025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGACCTGGAAAAATGGATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAA 1968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCT 1908
   GCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAG
                                      GGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (bases 1 to 2070)
                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/mol type="mRNA"
/db_Xref="taxon:9606"
/clone="CSODI068YN23"
/tissue_type="placenta_Cot_2
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                               .2070
                                                                                                                                                                                                                                                                   96.8%;
                                                                                                                                                                                                                                                 Score 1961; Di
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                     BB
                                                                                                                                                                                                                                                                                                                                                          25-normalized"
                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HTC 21-JUL-2004
25-normalized
                                                                                                                                                                                                                                                   ω
••
                                                                                                                                                                                                                                                    Gaps
                                                                          228
                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1800
                                                                                                                                                                                69
                                                                                                                                               168
```

949 GGGGATTTGATCGTGGAGGCATGAGAGAGGAGGAGGAGGAGGAGGAGGATG 1008 RESULT 6	
CR594868 CR594868 CR594868 Of Homo Bapiens (human). CR594868 CR594868.1 GI:50475675 HTC; CNSLT_CDNA. Homo Bapiens (human) Homo Bapiens (human) Homo Bapiens (human) Homo Bapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 2093) Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished Contact: Feng Liang Email: fliang@lifetech.com URL: http://fulllength.invitrogen.com/ InvitroGen Corporation 1600 Paraday Avenue 2 (bases 1 to 2093) Genoscope. Direct Submission Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage: BP 191 91006 EVRY cedex - FRANCE (E-mail: seqref@genoscope.cns.fr Web: www.genoscope.cns.fr) lst strand cDNA was primed with a NotI-oligo(dT) primer. Five prime	GCTCCGAAGAAGCCTCCAATGAACATATTCAAGGGAGCAAACTTAAAGTCTCCCTT 1317 GCTCCGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGA 1428

밁

á

১ ৪ ১

8 8 8 8 8 8 8

음 **ઇ**

8

8 8 8 8

용 용 용

8

8 8 8 8

음 중

음 성 음

```
S
                                  문
                                                    S
                                                                        밁
                                                                                    Ş
                                                                                                             В
                                                                                                                           Ş
                                                                                                                                            망
                                                                                                                                                              S
                                                                                                                                                                                밁
                                                                                                                                                                                                  ર્
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                        र्
                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 96.8%;
Best Local Similarity 99.8%;
Matches 1974; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
             829
                                                                                                                                                                                                                                                                                                                                                         289
                                                                         661
                                                                                         709
                                                                                                             601
                                                                                                                               649
                                                                                                                                                  541
                                                                                                                                                                   589
                                                                                                                                                                                      481
                                                                                                                                                                                                         529
                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                            469
                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                  409
                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                      349
                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                229
                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                    169
781
                                    721
                                                     769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          109
                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     into the was norma division
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  end
                                                                                                                                                                                                                                                                                                                                        GCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTTATGATACCACCACTGCTACA
                                                                                                                                                                                                                                                                                                                                                                             GCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCCAACTGCCCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAG
                                    GTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                            GGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTAT
                                                                                                                                                                                                 TATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTC
                                                                                                                                                                                                                                       CCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGA
                                                                                                                                                                                                                                                                           CCAGCCTATGGGCAGCCAGCAGCCAGCCACCTGCACCTACAAGACCGCAGGATGGAAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                   GGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACC
AGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGA
          AGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGA
                                                                                                                                                                                       TATGGACAGAGTAACTACAGTTATCCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTC
                                                                                                                                                                                                                            CCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGGTTACAACCAGCCCAGCCTAGGA
                                                                                                                                                                                                                                                                 CCAGCCTATGGGCAGCAGCAGCAGCACCTGCACCTACAAGACCGCAGGATGGAAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           enriched, double-strand cDNA was digested with Not I and cloned or the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library normalized. Library was constructed by Life Technologies, a ision of Invitrogen.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODIO64YE15"
/tissue_type="placenta_Cot_2
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . 2093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1961; Di
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-normalized"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                u
•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                        408
                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
840
                 888
                                    780
                                                       828
                                                                          720
                                                                                            768
                                                                                                               660
                                                                                                                                708
                                                                                                                                                   600
                                                                                                                                                                    648
                                                                                                                                                                                        540
                                                                                                                                                                                                          588
                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                               528
                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                  468
                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                            348
                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                    228
                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                         S
                                                                                                                                                                                                밁
                                                                                                                                                                                                              δ
                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                    뫄
                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
         음 성
                                                           δ
                                                                                  片
                                                                                                S
                                                                                                                   밁
                                                                                                                                    Ś
                                                                                                                                                      밁
                                         문
                                                                                                                                                                                                                                     1498
                                                                                                                                                                                                                                                                          1438
                                                                                                                                                                                                                                                                                                               1378
                                                                                                                                                                                                                                                                                                                                                    1318
                                                                                                                                                                                                                                                                                                                                                                                                                             1198
                                                                                                                                                                                                                                                                                                                                                                                                                                              1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1018
                                                                                                                                                            1618
                                                                                                                                                                              1669
                                                                                                                                                                                                 1558
                                                                                                                                                                                                                  1609
                                                                                                                                                                                                                                                        1549
                                                                                                                                                                                                                                                                                            1489
                                                                                                                                                                                                                                                                                                                                                                      1369
                                                                                                                                                                                                                                                                                                                                                                                         1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1009
          1858
                                                                                                                       1678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTTCCGGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGCGGTGGAATG
                                                                                                                                                                                                                                    GGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATG
                                                                                                                                                                                                                                                                                                                                                   GCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTAT
                        TTGATGGAACAGATGGGAGGAAGAAGAGGGAGGACGTGGAGGACCTGGAAAAATGGATAAA 1968
                                              GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGC
                                                                                                                                 AGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCC
                                                                                                                                                                      GCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGC
                                                                                                                                                                                                 CCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG
                                                                                                                                                                                                                                                                          GGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGT
                                                                                                                                                                                                                                                                                     GGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                               GCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                              GANACAGGANAGCCCANAGGCGATGCCACAGTGTCCTATGAAGACCCACCCACTGCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTAT
                                                                                                                         AGAGGTGGCCCTGGTGGCATGCGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCC
                                                                                                                                                             GCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGC
                                                                                                                                                             1677
                                                                                                                                                                                                                                                          1608
                                                                                                                                                                                                                                                                                                                                                      1377
                                                                                                                                                                                                                                                                                                                                                                        1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1008
                                                                  1908
                                                                                     1797
                                                                                                       1848
                                                                                                                          1737
                                                                                                                                            1788
                                                                                                                                                                                                   1617
                                                                                                                                                                                                                    1668
                                                                                                                                                                                                                                       1557
                                                                                                                                                                                                                                                                            1497
                                                                                                                                                                                                                                                                                              1548
                                                                                                                                                                                                                                                                                                                 1437
                                                                                                                                                                                                                                                                                                                                   1488
                                                                                                                                                                                                                                                                                                                                                                                          1317
                                                                                                                                                                                                                                                                                                                                                                                                            1368
                                                                                                                                                                                                                                                                                                                                                                                                                               1257
                                                                                                                                                                                                                                                                                                                                                                                                                                               1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
            1917
```

8 8 8 8 8 8	B & B &	Query Match Best Local Si Matches 1974; Qy 49 G Db 1 G	source ORIGIN	COMMENT	REFERENCE AUTHORS TITLE JOURNAL	SOURCE ORGANISM REFERENCE AUTHORS TITLE TOTBUAL	RESULT 7 CR610888 LOCUS DEFINITION ACCESSION VERSION KEYWORDS	B 8
229 GCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCAG 288	109 CCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTAT 168	/ Match 96.8%; Score 1961; DB 3; Length 2126; Local Similarity 99.8%; Pred. No. 0; les 1974; Conservative 0; Mismatches 0; Indels 3; Gaps 1; 49 GATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAG 108		NotI-oligwas digest the pCM ructed by	Contact: Feng Liang Email http://fulllength.invitrog Faraday Avenue 2 (bases 1 to 2126) Genoscope. Direct Submission Submitted (20-JUL-2004) Ge	Homo sapier M Homo sapier Eukaryota, Mammalia, E 1 (bases 1 11,W.B., Gr Full-length	CR610888 2126 bp mRNA linear HTC 21-JUL-2004 DN full-length cDNA clone CSODF037VI07 of Fetal brain of Homo sapiens (human). V CR610888 CR610888.1 GI:50491695 HTC; CNSLT cDNA.	1969 GGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACTAGATGCAGAGACCCCGCAGA 2025
			0 0 0	מ ט מ ט	a o a a	ם מ ם מ	0 4 0 4 0	
		ـــ ـــ ـــ ــــ ـــــــــــــــــــــ	0y 1	р Q р Q	B & B &		8 B 8 B 8	B 8
			949 GGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGAGGAGGACGCGGTGGAATG 1008	829 AGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGA 888			469 CCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGA 528	409 CCAGCCTATGGGCAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAG 468

COMMENT FEATURES SOURCE	REFERENCE AUTHORS TITLE JOURNAL	SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL REMARK	RESULT 8 CR593724 LOCUS DEFINITION ACCESSION VERSION	8 8 8	\$ \$ \$	d Vo	B 8	g Q	P &	유 성	da
6 % 1: 0 1:	Faraday Avenue 2 (bases 1 to 2073) Genoscope. Direct Submission Submitted (20-JUL-2004) Genoscope - Centre National de Sequenc BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cn BP 191 91006 EVRY cedex - FRANCE (B-mail : seqref@genoscope.cn	Homo sapier Homo sapier Eukaryota; Mammalia; I (bases Li,W.B., G] Full-lengt! Unpublished Contact:	CR593724 ON full-length cDNA clone CS0DI011Y005 of Placenta Cot 25-normalized of Homo sapiens (human) N CR593724 CR593724		1849 ATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCT 1908	1789 GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGC 1848	1729 AGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGAGGTGGCCTCATGGATCGTGGTGGTCCC 1788	1669 GCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTCGC 1728	1609 CCCAATCCGGGTTGTGGÀAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG 1668 	1549 TCCCGAGGGAACCCCTCTGGAGGAAGGAAACGTCCAGCACCGAGCTGGAGAGACTGGCAGTGT 1608	
0 8 0 8 0 8	2	D	Q	р Q . р ;	& B &	D Qy	Qy dt	DB Q9	B &	Que Bes Mat	ORIGIN
926 CTGATJACCGGGGCAGGGGAAGAGGATTTGATCGTGGAGCATGAGCATGAGAGGTGGGGCATGAGAGAGGTGGGGCATGAGAGAGGTGGGGCATGAGAGAGGCAGGGGAAGAGGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCAGGGTGGGCAGAGGGAGG			506 GTTACAACCKGCCCAGCCTAGGACTAGGACAGAGGAACAACTACAGTTATCCCCAGGTACCTG		326 CTTATGATACCACCACTGCTACAGTCACCACCCAGGCCTCCTATGCAGCTCAGTCTG	266 ATACTACTCCAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTG	206 CCACTGCAACCTATGGGCAGACCGCCTATGCAACCTTCTTATGGACAGCCTCCCACTGGTT	146 GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGA	86 GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG	Query Match 95.8%; Score 1940; D Best Local Similarity 100.0%; Pred. No. 0; Matches 1940; Conservative 0; Mismatches	/plasmid="pCMVSPORT_6

```
RESULT 9
CR608666
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઇ
                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                               1886
                                                                                                                                                                                                                                                                                                             1741
                                                                                                                                                                                                                                                                                                                                         1826
                                                                                                                                                                                                                                                                                                                                                                       1681
                                                                                                                                                                                                                                                                                                                                                                                                     1766
                                                                                                                                                                                                                                                                                                                                                                                                                                  1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1561
                                                                                                                             1921
                                                                                                                                                                                                                                                1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961
      CR608666 2083 bp mRNA linear HTC 21-JUL-2004 full-length cDNA clone CS0DG004YL23 of B cells (Ramos cell line) of CR608666
                                                                                                                                        AGATGCAGAGACCCCGCAGA
                                                                                                                                                                                                    GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACT
                                                                                                                                                                                                                                                                 GCCCTGGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAGGAAGAAGAGGAGGACGTG
                                                                                                                                                                                                                                                                                                                           GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTTGGTGGAGGAAGACGAGCGTG
                                                                                                                                                                                                                                                                                                                                                                    GCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                                                                                                     GCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                              CGCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCGAGCTGGAGACTGGCAGTGTCCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGA
                                                                                                                                                                                                                                                GCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTG
                                                                                                                                                                                                                                                                                                          GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAACAGAGTGCAACCAGTGTAAGGCCCCAAAGGCCTGAAGGCTTCCTCCCGCCACCCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGGAGGTCCTGGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAGAACTGGGCCAACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGGAGGTCCTGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGATCCACATCTACCTGGACAAGGAAAACAGGAAAAGCCCAAAAGGCGATGCCACAGTGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGAGATGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG
                                                                                                                                                        2025
                                                                                                                                                                                                                                              1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1405
                                                                                                                                                                                                                2005
                                                                                                                                                                                                                                                                            1945
                                                                                                                                                                                                                                                                                                          1800
                                                                                                                                                                                                                                                                                                                                      1885
                                                                                                                                                                                                                                                                                                                                                                    1740
                                                                                                                                                                                                                                                                                                                                                                                                1825
                                                                                                                                                                                                                                                                                                                                                                                                                               1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
KEYWORDS
SOURCE
ORGANISM
                       á
                                                     밁
                                                                                    8
                                                                                                             밁
                                                                                                                                                Ś
                                                                                                                                                                                  밁
                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
JOURNAL
REMARK
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 1940;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
    481
                               566
                                                             421
                                                                                          506
                                                                                                                        361
                                                                                                                                                     446
                                                                                                                                                                                    301
                                                                                                                                                                                                               386
                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                          326
                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                    266
                                                                                                                                                                                                                                                                                                                                                                                                                                                          146
                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      86 GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (B-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 2083)

Li, W.B., Gruber, C., Jessee, J. and Polayes, D.

Pull-length cDNA libraries and normalization

Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CR608666.1 GI:50489473
HTC; CNSLT_CDNA.
Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genoscope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
CAAGACCGCAGGATGGAAACAAGCCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGA
                                                             GTTACAACCAGCCCAGCCTAGGATATGGACAGAGTTACAGTTATCCCCAGGTACCTG
                                                                           GTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTG
                                                                                                                     CAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGG
                                                                                                                                                                               CTTATGATACCACCACTGCTACAGTCACCACCAGGCCTCCTATGCAGCTCAGTCTG
                                                                                                                                                                                                                                                                                                      ATACTACTCCAACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTG
                                                                                                                                                                                                                                                                                                                         ATACTACTCCAACTGCCCCCCAGGCATACAGCCAGGCTGTCCAGGGGTATGGCACTGGTG
                                                                                                                                                                                                                                                                                                                                                                  CCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT
                                                                                                                                                                                                                                                                                                                                                                                   CCACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTT
                                                                                                                                                                                                                                                              CTTATGATACCACCACTGCTACAGTCACCCACCCAGGCCTCCTATGCAGCTCAGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                            GGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCCAGGCTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 2083)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                95.8%;
ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/clone="CSODG004YL23"
/tissue_type="B_cells (Ramos cuplasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1. .2083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1940;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ω
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cell line) "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 2083;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>.</u>,
 540
                               625
                                                             480
                                                                                         565
                                                                                                                     420
                                                                                                                                                   505
                                                                                                                                                                                 360
                                                                                                                                                                                                             445
                                                                                                                                                                                                                                                                         385
                                                                                                                                                                                                                                                                                                                                 325
                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                             265
                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                          205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
```

8 8 8 8

ঠ

음 성 음

S

ई

S

Ş

S

밁 δ 밁 S 밁 ð 밁 ঠ 밁 Ś 밁 ঠ

밁

```
1141
                               1646
                                                                                                                                          1441
                                                                                                                                                                             1526
                                                                                                                                                                                                                 1381
                                                                                                                                                                                                                                                   1466
                                                                                                                                                                                                                                                                                      1321
                                                                                                                                                                                                                                                                                                                          1406
                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                             1346
                                                                                                                                                                                                                                                                                                                                                                                                                                  1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1046
1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGCACACCTATGGGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGGCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTC
                                                                                                                                                                  CAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGAGATAGAGGAGGCT
                                                                                                                                                                                                                                                                                                         GTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACCCCGTGGAGGTCCAGGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                    GGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGAAGACCCACCCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGGCGATGCCACAGTGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCA 1225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGGAGGACGACGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCCCCAGTAGCATGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAAC
                                                                                      ACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGA 1645
                                                                                                                                                                                                                 CAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCCGTGGAGGAGATAGAGGAGGCT
                                                                                                                                                                                                                                                                                      GTCTGCCACCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCC
                                                                                                                                                                                                                                                                                                                                                             GGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGATAACCGGGGCAGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCC
                                                                                                                                          TCCCTCCAAGAGGACCCCGGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGC
                                                                                                                                                                                                                                                 1525
                                                                                                                                                                                                                                                                                                                          1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1045
1620
                                   1705
                                                                                                                                                                                                                 1440
                                                                                                                                                                                                                                                                                        1380
                                                                                                                                                                                                                                                                                                                                                               1320
                                                                                                                                                                                                                                                                                                                                                                                               1405
                                                                                                                                                                                                                                                                                                                                                                                                                                  1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1105
                                                                       1560
                                                                                                                                            1500
                                                                                                                                                                             1585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
```

밁

S 밁

S 밁 S 밁 र् 밁 S 문 8 밁 ঠ

맑

밁

60

δ

뭐 S 멍 Ś 밁 र्

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 10
CR604639
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                        S
                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
REMARK
                                                                 Query Match
Best Local Similarity
Matches 1879; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1621
                                  19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished
Contact : Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InVitroGen Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CR604639 2236 bp mRNA linear HTC 21-JUL-2004 full-length cDNA clone CS0DJ013YN08 of T cells (Jurkat cell line)
Cot 10-normalized of Homo sapiens (human).
                                                                                                                                                                                                                                                                                                               ist strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a
                                                                                                                                                                                                                                                                                                                                                                                 Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genoscope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Faraday Avenue
2 (bases 1 to 2236)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Li,W.B., Gruber,C., Jessee,
Full-length cDNA libraries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 2236)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CR604639.1 GI:5
HTC; CNSLT_cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CR604639
                                                                                                                                                                                                                                                                                                     division of Invitrogen
                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
AGATGCAGAGACCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCCAGAGATCGGCCCTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGGACCTGGAAAAATGGATAAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAAGAGGACGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCTCATGGATCGTGGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGATGCAGAGACCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCCTGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTG
                                                                 Conservative
                                                                                                                                               /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODJ013YN08"
/tissue_type="T_cells (Jurkat_cell line)
10-normalized"
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GI:50485446
                                                                                  92.1%;
99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Jessee, J. and Polayes, D. braries and normalization
                                                                   0;
                                                                   Score 1866; Di
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2025
                                                                                                    BB
                                                                                                  ų,
                                                                   0
                                                                                                  Length
                                                                                                                                                                                      ပ္ပ
                                                                     ω
--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1600
                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1945
                                                                     ۲,
```

음 원

1197 1218

```
1099
                                                                                    1018
                                                                                                                    1039
                                                                                                                                                961
                                                                                                                                                                             979
                                                                                                                                                                                                              901
                                                                                                                                                                                                                                             919
                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                              859
                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                         799
                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                         739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                79
                AAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCA
                                                                                                                                                                                                                                                                           ATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTTCCGGACCAGGAGAGCAGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGTGGGCGGGAGGACGCGGTGGAATGG--
                                                                                                                                                               GGTGGGCGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAAT
                                                                                                                                                                                                             AGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGA
                                                                                                                                                                                                                                   AGTGGCCCTGATAACCGGGGCAGGGGGAAGAGAGGGGGATTTGATCGTGGAGGCCATGAGCAGA
                                                                                                                                                                                                                                                                                                                                                            AGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCCAGTAGC
                                                                                                                                                                                                                                                                                                                                                                                                         CAGCCTCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATAT
                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCCTCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCTACCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTACCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCÄG
                                                                                                                                                                                                                                                                                                                                         AGCCAACAGAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTAT
                                                                                                                                               -GCGCTGGAGAGCGAGGTGGCTTCAAT
                    1137
                                                                                  1077
                                                                                                                1098
                                                                                                                                                1017
                                                                                                                                                                              1038
                                                                                                                                                                                                              960
                                                                                                                                                                                                                                             978
                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                           918
                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                           858
                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                           798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             138
                REFERENCE
AUTHORS
TITLE
JOURNAL
MEDLINE
PUBMED
                                                                                                                                               SOURCE
ORGANISM
                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                            RESULT 11
AK034755
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
 REFERENÇE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            음 성
                                                                                                                                                                                                                                                                                                                                                          1858
                                                                                                                                                                                                                                                                                                                                                                                        1879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1618
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1279
                                                                                                          AK034755

AK034755

Mus musculus 12 days embryo embryonic body between diaphragm region and neck cDNA, RIKEN full-length enriched library, clone:9430031M11 product:Ewing sarcoma homolog, full insert sequence.

AK034755

AK03475

AK034755

AK03475

AK034755

AK03475

AK034755

AK034755

AK03475

AK03475

AK03475

AK03475

AK0
Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA
Meth. Enzymol. 303, 19-44 (1999)
99279253
10349636
                                                                                                                                                                                                                                                                                                                                                        GACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGA 1518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACCACTCCGTGGAGGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGAT 1338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACA 1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1879
                                                                                                                                                                                                                                                                                                                                                                                        1900
                                                                 cloning
```

. 1698

1677

1638

1557 1578

1617

1878 1797 1818 1458

1437

1398

1377

रु दे र

유

밁

음 성 음

S 음 중 8 8 8 8

문

중 유

ঠ

음 성 음

Ş 밁 र् 밁 8 ₽ ક 밁 ঠ 밁 8

```
JOURNAL
MEDLINE
PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BITIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Adachi, J., Aizawa, K., Akimura, T., Arakawa, T., Bono, H., Carninci, P., Fukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hashizume, W., Hayashida, K., Hayatsu, N., Hiramoto, K., Hiraoka, T., Hirozane, T., Hori, F., Imotani, K., Ishii, Y., Itoh, M., Kagawa, I., Kasukawa, T., Katoh, H., Kawai, J., Kojima, Y., Kondo, S., Konno, H., Kouda, M., Koya, S., Kurihara, G., Matsuyama, T., Miyazaki, A., Murata, M., Nakamura, M., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Ohsato, N., Okazaki, Y., Saito, R., Saitoh, H., Sakai, G., Sakai, K., Sakazume, N., Sano, H., Sasaki, D., Shibata, K., Shinagawa, A., Shiraki, T., Sogabe, Y., Tagami, M., Tagawa, A., Takahashi, F., Takaku-Akahira, S., Takada, Y., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A., Muramatsu, M., and Hayashizaki, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      submitted (16-JUL-2001) Yoshihide Hayashizaki, The Institute c Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yoko Kanagawa 230-0045, Japan (E-mall:genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Shibata,K., Itoh,M., Aizawa,K., Nagaoka,S., Sasaki,N., Carninci,P., Konno,H., Akiyama,J., Nishi,K., Kitsunai,T., Tashiro,H., Itoh,M., Sumi,N., Ishii,Y., Nakamura,S., Hazama,M., Nishine,T., Harada,A., Yamamoto,R., Matsumoto,H., Sakaguchi,S., Ikegami,T., Kashiwagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E., Watshiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura,S., Kawai,J., Kokazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y. RIKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                   cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Group Phase I & II Team.
Analysis of the mouse transcriptome
of 60,770 full-length cDNAs
Nature 420, 563-573 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Functional annotation of a Nature 409, 685-690 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The
                                                                                                                                                                                                                                                                                  URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/.
                                                                                                                                                                                                                                                                                                                   prepare mouse tissues.
Please visit our web site for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11076861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 2373)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FANTOM Consortium and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RIKEN Genome Exploration Research Group Phase II Team and the
/clone_lib="RIKEN full-length enriched mouse cDNA library'/dev_stage="12 days embryo"
43. ~2011
                                                                                                                                /strain="C57BL/6J"
/db_xref="FANTOM_DB:9430031M11"
/db_xref="taxon:10090"
                                                                                                                                                                                            organism="Mus musculus"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                   tissue_type="embryonic body between diaphragm region"
                                                                                                              clone="9430031M11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       full-length mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RIKEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                based on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Exploration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                functional annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cDNA collection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GSC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                           밁
                                                                                                                                                  δ
                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 1873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1873;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            127
                                                                                                                                                                                                 727
                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                      667
                                                                                                                                                                                                                                                                                                                                 660
                                                                                                                                                                                                                                                                                                                                                                            607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
```

```
Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATAGTCAAGCTGCAGCCCAGCAGGGCTACAGGTGCTTACACCGCCCAGCCAACTCAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACGGACGTTGAGAGAACGAGGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACC
ACAGGACCACCCCAGTAGCATGGGTGTTTTATGGGCAGGAGTCTGGAGGATTTTTCCGGACC
                                                                                CCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCG
                                                                                                                                                                         ACAAAGCAGCTATGGGCAGCAGCAGCCCCACTAGTTACCCCACCCCAAACTGGATCCTACAG
                                                                                                                                                                                                                                                             CTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCA
                                                                                                                                                                                                                                                                                                                         ATCTTATCCTCCTACCAGCTACTCCTCTTCACAGCCGACTAGTTACGATCAGAGCAGTTA
                                                                                                                                                                                                                                                                                                                                                  ATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                TAACTACAGCTATCCCCAGGTACCTGGGAGCTACCCAATGCAGCCAGTCACCGCACCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                         TAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAGTCAACCTCAATCTAGCACAGGGGGTTATAACCAACCCAGCCTAGGATATGGACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAGCAGCCAACAGCCACCGCACCTACCAGACCACAGGATGGTAACAAGCCTGCTGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCAGCAGCCAGCACCTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGGCCTCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGATGTCAGCTATACTCAGGCTCAGACCACTGCCACCTACGGGCAGACTGCATATGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATGCACAGACCACCCAGGNCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATGCACAGACCACCCAGG-CATATGGGCAAAAAGCTATGGAACCTATGGACAGCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TATAGCCAAGCTGCAGCGCAGCAGGGGCTACAGTGCTTACACCGCCCAGCCCCACTCAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACGGACGTTGAGAGAACGAGGAGGAAGGCGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                                                                                             ACAAAGCAGCTATGGGCAGCAGCCTCCTACTAGTTACCCCCCTCAGACTGGATCCTACAG
                                                                                                                                                                                                                                  CTCTCAGCAGAACACCTATGGGCAGCCGAGCAGCTATGGACAACAGAGTAGCTATGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   87.4%;
ilarity 93.2%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="Ewing sarcoma homolog (MGD|MGI:99960,
evidence: BLASTN, 99%, match=2172)
putative"
2358. .2363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="putative"
2373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1769.8;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ω
--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GB NM_007968,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6
                                                                                                                                                                                                                                                                                                                                                                    659
                                                                                                                                                                                                                                                                                                                                                                                                                  606
                                                                                                                                                                                                                                                                                                                                                                                                                                                           599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       186
                                                                                                    839
                                                                                                                                                                                      779
                                                                                                                                                                                                                                       726
                                                                                                                                                                                                                                                                                                                           666
                899
                                                         846
```

밁 ঠ

	1980 TCAGGAGCGCAGAGATCGGCCCTACTAGA 2008
TITLE	1920 GATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCG 1979
	1860 TGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGATGGAACA 1919
	1800 CAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGG 1859
REFERENCE AUTHORS	1740 TGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTT 1799
TITLE	1680 TGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCC 1739
TITLE JOURNAL REFERENCE	1620 TTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCC 1679
PUBMED REFERENCE AUTHORS	1560 CCCCTCTGGAGGAAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGG 1619
JOURNAL	1500 AGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGGTTCCCCGAGGGAA 1559
	1440 ACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGACCCATGGGTCGCATGGG 1499
REFERENCE AUTHORS	1380 GCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACC 1439
JOURNAL	1320 ATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAA 1379
REFERENCE AUTHORS	1260 GCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCACCC
TITLE	1200 GATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAA 1259
REFERENCE	1140 AAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAA 1199
ACCESSION VERSION KEYWORDS SOURCE ORGANISM	1080 AGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATT 1139
	1020 AGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCT 1079,
RESULT 12 AK019460 LOCUS	960 TCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGACGCGGTGGAATGGGCAGCGCTGG 1019
	900 AGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCACGGGAAAGAGGGGGGATTTGA 959

ঠ

밁

र्

밁

र् 밁 ঠ 밁 Ś

밁

ş 밁 8 g र् 밁 ঠ 밁 ફ 밁 ş 문 ঠ 밁 S 밁 δ 문 S 밁 8 밁 र् 밁 ঠ

Group Phase I & II Team.

Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs

AL Nature 420, 563-573 (2002)

B 6 (bases 1 to 2107)

Arakawa,T., Bono,H., Carninci,P., Fukuda,S., Fukunishi,Y.,
Furuno,M., Hanagaki,T., Hara,A., Hayateu,N., Hiramoto,K.,
Furuno,M., Hanagaki,T., Hara,A., Hayateu,N., Hiramoto,K.,
Hiraoka,T., Hori,F., Imotani,K., Ishi,Y., Itoh,M., Izawa,M.,
Kasukawa,T., Kato,H., Kawai,J., Kojima,Y., Konno,H., Kouda,M.,
Koya,S., Kurihara,C., Matsuyama,T., Miyazaki,A., Nishi,K.,
Nomura,K., Numazaki,R., Ohno,M., Okazaki,Y., Okido,T., Owa,C.,
Salto,H., Salto,R., Sakai,C., Sakai,K., Sano,H., Sasaki,D.,
Shibata,K., Shibata,Y., Tagawa,A., Takahashi,F., Tanaka,T.,
Tejima,Y., Toya,T., Yamamura,T., Yasunishi,A., Yoshida,K.,
Yoshino,M., Muramatsu,M. and Hayashizaki,Y.
Direct Submission

Submitted (18-AUG-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC),

The FANTOM Consortium and the RIKEN

Genome

on functional annotation Exploration Research

```
ULT 12
19460
US
INITION
                                                                                                                                                                                                                                                                                                                                                                                                            OURNAL
EDLINE
PUBMED
ERENCE
UTHORS
ITLE
DURNAL
BRENCE
UTHORS
                                                                                                           DURNAL
BDLINE
PUBMED
BRENCE
TTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ERENCE
UTHORS
ITLE
OURNAL
EDLINE
EDLINE
PUBMED
ERENCE
UTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HIL
                                                                                                                                                                           Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Jakiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y. asquencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                         20499374
11042159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AK019460
AK019460
AK019460
AK019460
Mus musculus 18 days pregnant adult female placenta and extra embryonic tissue cDNA, RIKEN full-length enriched library, clone:3830417B11 product:Ewing sarcoma homolog, full insert
                                              Functional a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Carninci, P. and Hayashizaki, Y.
High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
99279253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sequence.
AK019460
AK019460.1 GI:12859676
HTC; CAP trapper.
                                                                                         The RIKEN Genome E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (house
                                                                                                                                                             1076861
                                              annotation of a full-length, 685-690 (2001)
                                                                                                           Exploration Research Group
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                 mouse
                                                                                                              Phase II Team and
                                                                 cDNA collection
                                                                                                                the
```

```
S
                                                                                         밁
                                                                                                            5
                                                                                                                                           밁
                                     밁
                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
             S
                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                              Query Match
Best Local S
Matches 1855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1855;
                                        121
                                                               141
              201
                                                                                          13
                                                                                                                 81
                                                                                                                                                                    21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
Please visit our web site (http://genome.gsc.riken.jp/) fo details.
                                                                                                                                           \vdash
                                                                                                                                                                                                         Similarity
                                                                                                                                           GGAGGAAGGCGAGAAAATGGCGTCCACGGATTACAGTACCTATAGTCAAGCTGCAGCCCA
                                                                                                                                                            GGAGGAAGGAGAAAATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCA
TCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACCTTCTTATGGACAGCCTCCCAC
                                        ATATGGGCAACAAAGCTATGGAACCTATGGACAGCCTACTGATGTCAGCTATACTCAGGC
                                                      ATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGC
                                                                                          GCAGGGCTACAGTGCTTACACCGCCCAGCCAACTCAAGGATATGCACAGACCACCCAGGC
                                                                                                         GCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCCACGCCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BamHI. Host: DH10B
                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                       /clone_lik
/dev_stage
17. .1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                            putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        match=2172)
                                                                                                                                                                                                                                                              MEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="unnamed p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tow.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /tissue type="placenta and extra embryonic tissue"
/clone_lib="RIKEN full-length enriched mouse cDNA library"
|dev_stage="18 days pregnant adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="3830417B11"
/sex="female"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /db_xref="FANTOM_DB:3830417B11"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        organism="Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   type="mRNA"
                                                                                                                                                                                                         87.1%;
93.3%;
                                                                                                                                                                                               0
                                                                                                                                                                                                          Score 1764;
Pred. No. 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein product; Ewing sarcoma homolog
, GB|NM_007968, evidence: BLASTN, 99%,
                                                                                                                                                                                              Mismatches 130;
                                                                                                                                                                                                                        DB 3;
                                                                                                                                                                                                                      Length
                                                                                                                                                                                               Indels
                                                                                                                                                                                                                         2107;
                                                                                                                                                                                              ω
--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hor
                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Yokohama,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           further
                                                                                                                                            60
                                                                                                                                                                      80
                260
                                        180
                                                                200
                                                                                          120
                                                                                                                    140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                          á
                                                                                                      밁
                                                                                                                                                        밁
                                                                                                                                                                              δ
                                                                                                                                                                                                             밁
                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
    밁
                 ð
                                            밁
                                                                                                                         S
                                                                                                                                                          1078
                                                                                                                                                                                                            1018
    1258
                            1281
                                                                                                                                                                                                                                       1041
                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                       981
                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                           921
                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                             861
                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACTGCATATGGCACCCAGCCTGCCTACCCCACCTATGGCCAGCAGCCAACAGCCACCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAGACCACTGCCACCTACGGGCAGACTGCATATGCAACTTCTTACGGACAGCCTCCCAC
                GTCCTATGAAGACCCACCCACTGCCAAGGCTGCGTGGAATGGTTTGATGGGAAAGATTT
                                                                    ACCCATGATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGGATGCCACAGT
                                                                                                                        TGATCTGGCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAAACTGGGCA
                                                                                                                                                          TGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGA
                                                                                                                                                                                                                                    GCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGA
                                                                                                                                                                                                                                                               TGGGCGGGAGACGGACGGGTGGACTGG---GCGCTGGAGAGCGAGGTGGCTTCAATAA
                                                                                                                                                                                                                                                                                      TGGGCGGGAGGAGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAA
                                                                                                                                                                                                                                                                                                                                        TGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGG
                                                                                                                                                                                                                                                                                                                                                                    GGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAACCCGGAGCTTGAG
                                                                                                                                                                                                                                                                                                                                                                                  GGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                      CCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCCAGTAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCCAGTAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCTCCTACTACTACCCCCCCTCAGACTGGATCCTACAGCCAGGCTCCAAGTCAATATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCTCCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAGCCGAGCAGCTATGGACAACAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCAACCGAGCAGCTATGGACAGCAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCCTCTTCACAGCCGACTAGTTACGATCAGAGCAGTTACTCTCAGCAGAACACCTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCTGGGAGCTACCCCATGCAGCCAGTCACCTGCACCTACCCTACCAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGGGGTTATAACCAACCCAGCCTAGGATATGGACAGAGTAACTACAGCTATCCCCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCTACCAGACCACGAGGATGGTAACAAGCCTGCTGAGACTAGTCAACCTCAATCTAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGGACTTATGACAGCACCACTGCTACAGTCACCACAACGCAGGCCTCTTACGCAGCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCCAGGCCTCCTATGCAGCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTCCTATGAAGATCCACCAACTGCAAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTT
                                                      ACCCATGATCCATATCTACCTGGATAAGGAGACAGGAAAGCCCTAAAGGGGACGCCACAGT
                                                                                                        TGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTCAAGATGAACAAGAGAACTGGACA
                                                                                                                                                                                                             GCCTGGTGGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCTTCCTATAGATCCCGA
                                                                                                                                                                                                                                                                                                                    TGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGG
                                                       1257
                                                                                                                                                            1137
                                                                                                                                                                                     1160
                                                                                                                                                                                                                1077
                                                                                                                                                                                                                                       1100
                                                                                                                                                                                                                                                                1017
                                                                                                                                                                                                                                                                                           1040
                                                                               1280
                                                                                                         1197
                                                                                                                                   1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                             1340
                                                                                                                                                                                                                                                                                                                                            980
                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                              920
                                                                                                                                                                                                                                                                                                                                                                                                                                                 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      320
                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
```

```
REFERENCE
AUTHORS
TITLE
JOURNAL
MEDLINE
PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
AK049743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
               TITLE
                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AK049743

Mus musculus 12 days embryo spinal enriched library, clone:C530046A18
                                                                                                                                                                                                                                                                                                                                                                      Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                    HTC,
Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K., Itoh, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y. Normalization and subtraction of cap-trapper-selected cDNAs to
                                                                                                                                                                                         Carninci, P. and Hayashizaki, Y.
High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             AK049743.1 GI:26093614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            full insert
                                                                                                                                   .0349636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGG 1520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCGCAGAGATCGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGTGGCCCTGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAGAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAGGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTTCCACCTCCGGGTGGTGATCGTGGACGAGGTGGCCCTGGTGGCATGCGAGGAGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACC 1700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCCGAGGGAACCCCTCTGGAGGAGGAAAACGT 1580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGTGGTCTGCCACCCCGTGAGGGCAGAGGCCATGCCACCACCACTCCGTGGAGGTCCAGG 1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTACTAGA 2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGAGGAGGCTTCCGAGGTGGCCGTGGAATGGACCGAGGTGGCTTTGGTGGAGGAAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGAGGACTCATGGACCGTGGTGGTCCTGGAGGAATGTTCAGAGGTGGCAGAGGTGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TIGGAGAAACAGAATIGCAACCAGTITAAGGCCCCTAAGCCCGAGGGCTTCCTCCCGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAGCACCGAGCTGGAGACTGGCAGTGTCCCCAATCCGGGTTGTGGAAAACCAGAACTTCGC 1640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAAGGAAGCAAACTTAAAGTGTCTCTTGCCCGAAAGAAGCCTCCAATGAACAGCATGCG 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACGTGGAGGACCTGGGAAAATGGATAAAGGCGAGCACCGTCAGGAACGCAGAGACCGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTTCCGCCCCCGGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAGGAAG 1760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGCTGTGGAAACCAGAACTTCGC 1617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGCCCAGGAGGCCCTGGAGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGACAGAGG 1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGAGGCATGCCACCTCGTGAGGGCAGGGGGATGCCACCACCACTTCGTGGAGGTCCTGG 1437
                                                                                                                                                                                                                                                                                                                                                                                        musculus (house mouse)
                                                                                                                                                                                                                                                                                                             Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mRNA linear HTC 03-APR-2004 cord cDNA, RIKEN full-length product:Ewing sarcoma homolog,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
      polyA_signal
                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Group Phase I & II Team.

Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs

AL Nature 420, 563-573 (2002)

CE 6 (bases 1 to 2269)

CE 8 Adachi, J. Aizawa, K. Akimura, T., Arakawa, T., Bono, H., Carninci, P., Fukuda, S., Furuno, M., Hanagqaki, T., Hara, A., Hashizume, W., Hayashida, K., Hayatsu, N., Hiramoto, K., Hiraoka, T., Hirozane, T., Hayashida, K., Hayatsu, N., Hiramoto, S., Kono, H., Kouda, M., Kojima, Y., Kondo, S., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Murata, M., Nashi, K., Nomura, K., Numazaki, R., Ohno, M., Ohsato, N., Okazaki, Y., Saito, R., Saito, H., Sakai, C., Sakazume, N., Sano, H., Sasaki, D., Shibata, K., Shinagawa, A., Shiraki, T., Sakazume, N., Sagoabe, Y., Tagami, M., Tagawa, A., Takahashi, F., Takakı-Akahira, S., Takeda, Y., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A., Muramatsu, M. and Hayashizaki, Y. Sasunishi, A., Muramatsu, M. and Hayashizaki, Y. Sasunishi, A., Muramatsu, M. and Hayashizaki, Y. Sasunishi, A., Shiraki, T., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A., Shirati, T., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A., Shirati, T., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A., Shirati, T., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A., Shirati, T., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A., Shirati, T., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A., Shirati, T., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A., Shirati, T., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A., Shirati, T., Tanaka, T., Toya, T., Yasunishi, T., Tanaka, T., Toya, T., Yasunishi, T., Toya, T., Yasunishi, T., Tanaka, T., Toya, T., Yasunishi, T., Tanaka, T., Toya, T., Yasunishi, T., Toya, T., Yasunishi, T., Toy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Chara, E., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y., RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                          URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Rigeronic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (16-JUL-2001) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokoha Kanagawa 230-0045, Japan (B-mail:genome-res@gsc.riken.jp, URL.http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               prepare mouse tissues.
Please visit our web site for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FANTOM Consortium. Functional annotat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The FANTOM Consortium and the RIKEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The RIKEN Genome Exploration Research Group
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20530913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11042159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .1076861
   /note="Ewing sarcoma homolog (MGD|MGI:99960,
evidence: BLASTN, 99%, match=2172)
putative"
2251. .2256
                                                                                                                             /tissue_type="spinal_cord"
/clone_Tib="RIKEN_full-length
/dev_stage="12 days_embryo"
48. __1903
                                                                                                                                                                                                                                                                                                                                                            /organism="Mus musculus"
/mol_type="mRNA"
                                                                                                                                                                                                                                                    clone="C530046A18"
                                                                                                                                                                                                                                                                              /db_xref="FANTOM_DB:C530046A18"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                         strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   annotation of a full-length, 685-690 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genome
                                                                                                                                                                                         enriched
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Exploration Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Phase II Team and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cDNA collection
                                                                                                                                                                                         mouse
```

밁 δ 밁 S 밁 8 밁 र् 밁 á 밁 Ś 문 S 밁 S 밁 δ 밁 S 문 ঠ 문

GB NM_007968

cDNA library'

	Qy 901 GGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGGAAGAGGGGGAAGAGGGGGATTTGAT 960	Qy 841 CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCA 900		721 CARAGCAGCTATIGGECAGEAGCCTTCCACTAGTTACCCACCCCARACTGGATCCTACTTTCTCCACTAGTTACCCCCCTCAGACCTGGATCCTACTTAGTTTACCCCCCCTCAGACTGGATCCTACTAGTTACCCCCCTCAGACTGGATCCTACTAGTTACCCCCCTCAGACTGGATCCTACTAGTTCATTCA	661 TCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAA	QY 601 TCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC 660	OY 541 AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA 600	Qy 481 AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT 540	OY 421 CAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT 480	Db 372 CAGGCCTCTTACGCAGCTCAGACTCAGACCTCAGCCTACCCCACCTATGGC 431	312 CCTGTGCAGGGATATGGCACTGGGACTTATGACAGCACCACTGCTACAGTCACCACAACG	301 CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCC	Qy 241 TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCGGGCATACAGCCAG 300	QY 181 GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT 240	Qy 121 TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT 180	Qy 61 TATAGCCAAGCTGCAGCGCAGGGCTACAGTGCTTACACCGCCCAGCCCAGCCCAAGGA 120	Qy 1 GACGGACGTTGAGAGAACGAGGAGGAAGAAAATGGCGTCCACGGATTACAGTACC 60	Query Match 76.9%; Score 1558; DB 3; Length 2269; Best Local Similarity 88.0%; Pred. No. 0; Matches 1768; Conservative 0; Mismatches 125; Indels 115; Gaps 2;		/note="putative" polyA_site 2269 /note="putative"
· <u> </u>	D	Q D 1	Qy Db	Qy Db	Qy Db	Q B S	? B !	O B :	Q B 4	р	Qy		D Q	P &	S B 1	Q B :	OV Db	Q Db	۵ 	 Ду
			1757 1921	1698 AGAGGTGGCAGAGGTGGACACAGAGGAGGCTTCCCAGGTGGCC-GGGAATGGACCGAGGT 1756 1861 GGCTTTGGAGGAGAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAG 1920	1638 1801	1741 GGTGGCATGCGGGAAGAAGAGGTGGCCTCATGGATCGTGGTCCCGGTGGAATGTTC	1518 TGTGGAAACCAGAACTTCGCCTTGGAGAACGAGAATGCAACCAGTGTAAGGCCCCTAAGCCCC		1561 CCCTCTGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGTT	1338	. 1278 1441	1381 CCTCCAATGAACAGTATGCGGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCA	1218 TGGTTTGATGGGAAAGATTTTCAAGGAAGCAAACTTAAAGTGTCTCTTGCCCGAAAGAAG	1158 CCTAAAGGGGACACAGTGTCCTATGAAGATCCACCAACTGCAAAGGCTGCCGAACGAC	1098 ATGAACAGGACAGCCGACCCCATGATCCATGTCTACGCTAAGGAGACAGGAAAG	1038	989 1141	989 1081	1021	961 CGTGGAAGCATGAGCAGAGGTGGGCGGGGGGAGGACGCGGGTGGAATGGGCAGCGCTGGA 1020

```
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 14
BX325713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 1029; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bource
                                                    307
                                                                                                                    247
                                                                                                                                                                                   187
                      363
                                                                                   303
                                                                                                                                                  243
                                                                                                                                                                                                                   183
                                                                                                                                                                                                                                                    127
                                                                                                                                                                                                                                                                                  123
                                                                                                                                                                                                                                                                                                                     67
                                                                                                                                                                                                                                                                                                                                                   63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BX325713 Homo sapies
BX325713 Homo sapies
clone CSODIO39YJ24 :
BX325713
                                                                                                                                                                                                                                                                                                                                                                                    7
                                                                                                                                                                                                                                                                                                                                                                                                                    w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genoscope - Centre National de Sequencage 2 rue Gaston Cremieux, CP 5706 - 91057 WVRY cedex - FRANCE 2 rue Gaston Cremieux, CP 5706 - 91057 WWW.genoscope.cns.fr Email: segref@genoscope.cns.fr, Web: www.genoscope.cns.fr let strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen. This sequence belongs to sequence cluster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 division of Invitrogen.
10589.f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Li, W.B., Gruber, C., Jessee, J. and Polayes, D. Full-length cDNA libraries and normalization Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               For more information about this cluster, see http://www.genoscope.cns.fr/cdna?s=CSOASO12ZHO2QP1&c=10589.f.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 1949)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  On May 2, 2003 this sequence version replaced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BX325713.2 GI:46280663
GGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCA
                                                                                                                                                                                                                                                                                                                                    TAGCCAAGCTGCAGCGCAGCAGGGGCTACAGTGCTTACACCGCCCAGCCCAGCCCAAGGATA
                                                                                                                                                                                                                                                                                                                                                                                                       CGGACGTTGAGAGAACGAGGAGGAAGGAAGAAAATGGCGTCCACGGATTACAGTACCTA
                                                                                                                                                                                                  TGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACTTC
                                                                                                                                                                                                                                                                      TGCACAGACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGA
                                                                                                                                                                                                                                                                                                                 TAGCCAAGCYGCAGCGCMAGNGNGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGATA
                                                                                                                                                                                                                                                                                                                                                                                CGGACGTTGAGAAAAACSAGGAAGGAAGAAAAATGGCGTCCACGGATTACAGTACCTA
                                                                                 TGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACCA
                                                                                                                                                  TGTCAGCYATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCVACTTC
                                                                                                                                                                                                                                                  TGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1049 bp mRNA linear BST 08-ÄPR-200.
Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens cDNA
0DI039YJ24 5-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /CIONE="CSODIO39VJ24"
/tissue_type="PLACENTA COT 25-NORMALIZED"
/tissue_type="PLACENTA COT 25-NORMALIZED"
/clone_Tib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/clone_Tist strand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR V
sites of the pCMVSPORT 6 vector. Library was normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  48.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 987; DB 5;
Pred. No. le-238;
8; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                   6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1049;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gi:30344479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EST 08-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                  422
                                                    366
                                                                                                                  306
                                                                                                                                                  302
                                                                                                                                                                                   246
                                                                                                                                                                                                                                                  186
                                                                                                                                                                                                                                                                                  182
                                                                                                                                                                                                                                                                                                                 126
                                                                                                                                                                                                                                                                                                                                                  122
                                                                                                                                                                                                                                                                                                                                                                                66
                                                                                                                                                                                                                  242
                                                                                                                                                  REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                RESULT 15
BX353313
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  367
                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                 BX353313.2 GI:46291060
                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                               SCGAGGTGGCTTC-ATAAGCCTGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCGAGGTGGCTTCAATAAGCCTGGTGG
                                                                                                                                                                                                                                                                               (human)
```

ફ

문

밁 र् 밁

밁 श

S

ঠ 밁 र् 밁

```
1008 bp mRNA linear ES EX353313 Homo sapiens NEUROBLASTOMA COT 25-NORMALIZED CDNA clone CSODC004YE22 5-PRIME, mRNA sequence.

EX353313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGAGGCATGAGCAGAGGTGGGCGGGGGGGGGAGGACGCGGTGGAATGGGCAGCGCTGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGAGGGGGGATTTGATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTTCCGGACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGCAGCTATGGGCAGCAGCCCCCCCCCCCCCCCCCAACTGGATCCTACAGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACTGGATCCTACAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGTAGCTATGGTCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCAGCCAGCCACTGCACCTACAAGACCGCAGGATGGAAACAAGCCCCACTGAGACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGAGGCATGAGCAGAGGTGGGCGGGGGAGGACGCGGTGGAATGGGC-RCCCTGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -GRCCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTTCCGGACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCAGCCAGCAGCCACCTACAAGACCGCA-GATGGAAACAAGCCCACTGAGACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1049
                                                                                                                                                                                                                                                                                                                                                                                                                                 EST 08-APR-2004
D Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       485
```

```
FEATURES
                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                       ð
                                                     밁
                                                                              ঠ
                                                                                                             밁
                                                                                                                                                                   밁
                                                                                                                                                                                          S
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                        ક
                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 990; Conserv
                                                      660
                                                                                  661
                                                                                                              600
                                                                                                                                         601
                                                                                                                                                                     540
                                                                                                                                                                                                 541
                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ب
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10589.f
For more information about this cluster, see
http://www.genoscope.cns.fr/cdna?s=CSODC004BC11QP1&c=10589.f.
hocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATGCACAGACCACCCAGGCATATGGGCAAACAAAGCTATGGAACCTATGGACAGCCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATGGACGTTGAGAGAACGVGGAGGAAGGAGAGAAAATGGCGTCCACGGATTACAGTACC
             CAGCAGCCAGCAGCCACCTACAAGACCGCAGGATGGAAACAAGCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                          CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                 CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACCACCTGCTACAGTCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAGGCATACAGCCAG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATGTCAGCNATACCCAGGCTCAGACCACTGCAACCTATGGGCAGACCGCCTATGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTATGGACAGCCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TATAGCCAAGCTGCAGCGCSAGNGNGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAGCCCACTCAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACGGACGTTGAGAGAACGAGGAGGAGGAGGAGAAAATGGCGTCCACGGATTACAGTACC
                                                                     TCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTTAC
                                                                                                                                                                                    AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                                            AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                                    CAGCAGCCAGCCACTGCACCTACAAGACCGCA-GATGGAAACAAGCCCACTGAGACT
                                                                                                                                                                                                                                                                                                                                                                      CAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTATCCAGCCTATGGG
                                                                                                                                                                                                                                                                                                                                                                                                  CCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACAGTCACCACCACC
                                                                                                              TCCTACCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGATCAGAGCAGTCAC
                                                                                                                                                                      AACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTCACTGCACCTCCA
                                                                                                                                                                                                                             AGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGATATGGACAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          48.2%;
ilarity 98.1%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /db_xref="taxon:9606"
/clone="CSODCO04YE22"
/clone="CSODCO04YE22"
/tissue type="NeuroBLASTOMA COT 25-NORMALIZED"
/clone Tib="Homo sapiens NEUROBLASTOMA COT 25-NORMALIZED"
/note="ist strand cDNA was primed with a NotI-oligo (dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR V
sites of the pCMVSPORT 6 vector. Library was normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                organism="Homo sapiens"
mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 976.8; DB 5; Pred. No. 3.8e-236; 6; Mismatches 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1008;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                          660
                                                                                                                                                                                                                                                                                     479
                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
 779
                                                      719
                                                                                                              659
                                                                                                                                                                      599
                                                                                                                                                                                                  600
                                                                                                                                                                                                                             539
                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
```

DЪ	8	망	Ş	DЬ	Ş	Дb	δ
Db 960 CGTGGASGCATGACMYRAGGTGGGCSGGGAGGACGCGGTGGAATGG 1008		900	QY 901 GGAGAGAACCGGAGCATGAGTGGCCCCTGATAACCGGGGCAGGGGAAGAGGGGGATTTGAT 960	Db 840 CAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGATTTTCCGGACCA 899		Db 780 CAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAGAGTTCATTCCGA 839	
ATGG 1008	ATGG 1009	AGAGGGGGATTTGAT	AGAGGGGGATTTGAT	GATTTTCCGGACCA	GATTTTCCGGACCA	CAGAGTTCATTCCGA	CAGAGTTCATTCCGA
		959	960	899	900	839	840

Search completed: February 20, 2005, 16:17:50 Job time : 5987.34 secs

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
  ი
                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
1012
1010.4
1000.4
1000.4
1008.8
1008.8
1008.8
996.
996.
995.4
                                                                                                                                                                                                                  Score
                                                                                                                                                                       1012
1012
1012
  100.0
                                                                                                                                                                                                                 Match Length DB ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               February 20, 2005, 00:41:37 ; Search time 4248.83 Seconds (without alignments)
11541.209 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4708233 seqs, 24227607955 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-791-017A-1_COPY_1000_2011
1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 aggacgcggtggaatgggca.....agcgcagagatcggccctac 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GenEmbl: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                           gb_v1: *
gb_ste: *
gb_ste: *
gb_ste: *
                                                                                                                                                                                                                                                                                                                                                                            gb_pat:*
gb_ph:*
 193559
                                                                                                                                                                                                                                                                                                                                                                                                              ov: *
                                                                                                                                                                                                                                                                                                                                                                                                                         о
П
•
                               BT007796
AX714390
AK056681
BC004817
CQ867364
           A36460
AR06100
AX411125
HSEWS
CQ850483
AX127624
CQ730352
BC072442
AX056309
CR456490
CR456490
AX026270
                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9416466
                BT007796 Synthetic
AX714390 Sequence
AX056681 Homo sapi
BC004817 Homo sapi
BC004817 Homo sapi
CQ867364 Sequence
AX4811125 Sequence
AX411125 Sequence
X66899 H sapiens
CQ850483 Sequence
AX127624 Homo sapi
CQ730352 Sequence
BC072442 Homo sapi
CR456490 Homo sapi
CR456490 Homo sapi
BC611048 Homo sapi
                                                                                                                                                                                                                 Description
```

n				Ω	ი		Ω				ი	ი	ი			ი	ი							ი	
4 5	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20
508	510.6	513.8	524.6	552.8	559.6	559.6	562.8	562.8	595.6	653.6	750	750	750	779	779	817.6	817.6	860	879.2	879.2	879.2	895.2	908	908	908
50.2	50.5	50.8	51.8	54.6	55.3	55.3	55.6	55.6	58.9	64.6	74.1	74.1	74.1	77.0	77.0	80.8	80.8	85.0	86.9	86.9	86.9	88.5	89.7	89.7	89.7
221924	160334	110000	270337	257383	274656	274656	249523	220708	2440	1462	263925	235241	226400	247757	221444	163104	132906	1783	2396	2188	2188	2189	182501	180718	155815
N	N	N	N	N	N	N	N	N	ഗ	σ	N	N	N	N	N	N	N	σ	v	10	σ	10	N	9	Ν
AC105889	AC079549	AC149218_2	AC099212	AC079494	AC079538	AC079538	AC079537	AC150903	AJ719366	CQ434162	AC106522	AC098231	AC128482	AC121282	AC113313	AC110672	AC109802	CQ721057	BC083960	MMEWS	AX305537	BC068226	AC011221	AL596087	AC018774
AC105889 Rattus no	AC079549 Mus muscu	Continuation (3 of	AC099212 Rattus no	AC079494 Mus muscu	AC079538 Mus muscu	AC079538 Mus muscu	AC079537 Mus muscu	AC150903 Mus muscu	AJ719366 Gallus ga	CQ434162 Sequence	AC106522 Rattus no	AC098231 Rattus no	AC128482 Rattus no	AC121282 Mus muscu	AC113313 Mus muscu	AC110672 Canis fam	AC109802 Canis fam	CQ721057 Sequence	BC083960 Xenopus 1	X79233 M.musculus	AX305537 Sequence	BC068226 Mus muscu	AC011221 Homo sapi	AL596087 Human DNA	AC018774 Homo варі

ALIGNMENTS

_	271102
expression clones generated by BD Biosciences Clontech and the Harvard Institute of Proteomics, Each CDS has been cloned in two forms: with and without stop-codon (to allow fusion with C-terminal tag). The CDS has been directionally cloned using BD In-Fusion(TM) cloning system between the Sall and HindIII sites of the pDNR-DUAL vector. Additional sequences in the clone: 'ACC' after Sall site and before 'ATG' to provide Kozak consensus sequence; 'GG' after last codon and before HindIII site to maintain reading frame. Clone distribution: http://bioinfo.clontech.com/orfclones.	FEATURES
Submitted (13-MAY-2003) BD Biosciences Clontech, 1020 East Meadow Circle, Palo Alto, CA 94303, USA This CDS clone is a part of a collection of human full length	JOURNAL
Koundinya,M., Raphael,J., Moreira,D., Kelley,T., LaBaer,J., Lin,Y., Phelan,M. and Farmer,A. Direct Submission	TITLE
<pre>vector Unpublished 2 (bases 1 to 1971) Kalnine,N., Chen,X., Rolfs,A., Halleck,A., Hines,L., Eisenstein,S.,</pre>	JOURNAL REFERENCE AUTHORS
Koundinya, M., Raphael, J., Moreira, D., Kelley, T., LaBaer, J., Lin, Y., Phelan, M. and Farmer, A. Cloning of human full-length CDSs in BD Creator (TM) System Donor	TITLE
other sequences; artificial sequences. 1 (bases 1 to 1971) Kalnine,N., Chen,X., Rolfs,A., Halleck,A., Hines,L., Eisenstein,S.,	REFERENCE AUTHORS
BT007796 BT007796.1 GI:30584430 FLI CDNA. synthetic construct synthetic construct	ACCESSION VERSION KEYWORDS SOURCE ORGANISM
BT007796 1971 bp mRNA linear SYN 13-MAY-2003 Synthetic construct Homo sapiens Ewing sarcoma breakpoint region 1 mRNA, partial cds	RESULT 1 BT007796 LOCUS DEFINITION

source

. .1971

/organism="synthetic construct" /mol_type="mRNA" /mol_type="mRNA" /db_xref="ttaxon:32630" /clone="GH00297L1.0" /clone_lib="BD Creator(TM) CDS Library derived from MGC

```
문
                                                                                                                                                                  S
                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
δ
                           밁
                                                    á
                                                                                  밁
                                                                                                         5
                                                                                                                                                                                               밁
                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 1012;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                       1317
                                                                                                                                                                                                                                                                                                             1257
                                                                                                                                                                                                                                                                                                                                                                                                                           1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1017
                           1557
                                                                                   1497
                                                                                                                                         1437
                                                                                                                                                                                                 1377
                                                                                                                                                                                                                                                                                                                                                                     1197
                                                                                                               541
                                                                                                                                                                     481
                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                       109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               957
 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                       CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGGCGATGCCACAGTGTCCTATGAAGA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
 GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC 720
                                           TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACCTTCGCCTGGAGAACAGA
                                                                                                   TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGAGGCTTCCCCTCC 540
                                                                                                                                                                                                                                                                                 ACTIANAGICICCCITGCICGGAAGAAGCCICCAAIGAACAGIAIGCGGGGIGGICIGCC 420
                                                                                                                                                                                                                                                                                                                                         CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                                                                                                                                                                                                             CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA 1196
                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC 1016
                                                                                                                                                                                                 ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                           ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                     CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCAACAGTGTCCTATGAAGA
                             TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /lab_host="DH5alpha Tl resistant"
/note="Vector: pDNR-Dual"
1. .>1971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /codon
/transT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       collection"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /protein_id="AAP36468.1"
/db_xref="G1:30584431"
/translation="MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="Mutations: 1970:Stop->Leu"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         product="Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 1012; DB 12; 100.0%; Pred. No. 6.9e-197; ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gtart=1
[_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            s Ewing sarcoma breakpoint region
.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                      1256
                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1076
                             1616
                                                                                                                                           1496
                                                                                                                                                                                                                                                         1376
                                                                                                                                                                                                                                                                                                               1316
                                                                                    1556
                                                                                                             600
                                                                                                                                                                                                 1436
                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
```

```
RESULT 2
AX714390
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                  밁
                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
               Ş
                                                밁
                                                                               Ś
                                                                                                                  밁
                                                                                                                                            ঠ
                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 1012; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                   241
                                                   980
                                                                                                                   920
                                                                                                                                                                                     960
                                                                                                                                                                                                                                                       800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                   181
                                                                                                                                                    121
                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Full-length cDNAs
Patent: EP 1293569-A 1074 19-MAR-2003;
Helix Research Institute (JP) ; Resear
Biotechnology (JP)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Isogai,T., Sugiyama,T., Otsuki,T., Wakamatsu,A., Sato,H., Ishii. Yamamoto,J.I., Isono,Y., Hio,Y., Otsuka,K., Nagai,K., Irie,R., Tamechika,I., Seki,N., Yoshikawa,T., Otsuka,M., Nagahari,K. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AX714390 1988 bp D
Sequence 1074 from Patent EP1293569.
AX714390
AX714390.1 GI:29889342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Masuho, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (human)
CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGA 300
                                                                                                                                        CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATGATCTGGCAGA
                                                                                                                                                                                     CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                        CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA 120
                                                                                                                                                                                                                                                     AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACC
                                                                                                                                                                                                                                                                             AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAGGAGGACGTGGAGGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGTGGTCGCCGGGGCATGGACCGAGGTCGCTTTGGTGGAGGAAGACGAAGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAGGAGGAGGAGGGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA 1039
                                                                      CTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                   CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/mol_type="unassigned DN
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                       .1988
                                                                                                                                                                                                                                                                                                                     100.0%; Score 1012; DB 6; 100.0%; Pred. No. 6.9e-197; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; Research
                                                                                                                                                                                                                                                                                                                                                                                                                        DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Association
                                                                                                                                                                                                                                                                                                                                                      Length 1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PAT 15-APR-2003
                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ishii,S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                    240
                                                                                                                     979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1676
                                                                                                                                                                                     919
                                                                                                                                                                                                                                                       859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                         0
```

र् 밁 ई

맑

밁

```
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AK056681
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                              1988 bp mRNA linear
Homo sapiens cDNA FLJ32119 fis, clone PEBLM1000034,
to RNA-BINDING PROTEIN EWS.
Ota,T., Suzuki,Y., Nishikawa,T., Otsuki,T., Sugiyama,T., Irie,R., Wakamatsu,A., Hayashi,K., Sato,H., Nagai,K., Kimura,K., Makita,H., Sekine,M., Obayashi,M., Nishi,T., Shibahara,T., Tanaka,T., Ishi,S., Yamamoto,J., Saito,K., Kawai,Y., Isono,Y., Nakamura,Y., Nagahari,K., Murakami,K., Yasuda,T., Iwayanagi,T., Wagatsuma,M., Shiratori,A., Sudo,H., Hosoiri,T., Kaku,Y., Kodaira,H., Kondo,H., Sugawara,M., Takahashi,M., Kanda,K., Yokoi,T., Furuya,T., Kikkawa,E., Omura,Y., Abe,K., Kamihara,K., Katsuta,N., Sato,K., Yanashita,H., Tanikawa,M., Yamazaki,M., Ninomiya,K., Ishibashi,T., Yamashita,H.,
                                                                                                                                                                                                                                                                                                                   AK056681
AK056681.1 GI:16552152
Oligo Capping; fis (full insert
Homo sapiens (human)
                                                                                                                                                                                                                                                          Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGĆĀŠ 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGCAACCAGTGTAAGGCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGAGGACCCCGGGGTTCCCGAGGGAAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC 1399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA 1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG 1699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGATCGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC 1519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAAACCAGAACTTCGCCTGGAGAACAGA 1459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGAGGACCCCGGGGGTTCCCCGAGGGAAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCTGGGGGACCCATGGGATGGGAGGACGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCTGGGGGACCCATGGGTCGCATGGGAGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCCAGGAGG 1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCCCGTGAGGGCAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 1159
                                                                                                                                                                                                                                                          Chordata;
Primates;
                                                                                                                                                                                                                                                          Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                          sequence)
                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRI 30-JAN-2004
highly similar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1219
```

밁 8 밁 र् 밁 S

TITLE

S

밁 ঠ 밁 ঠ 밁 र् 밁 ঠ 문 ş 밁 á 밁

FEATURES

Sg

/codon_start=1 /note="unnamed protein

/proteIn_id="BAB71252.1"
/db_xref="G1:16552153"
/db_xref="G1:16552153"
/translation="MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY
/translation="MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTGAYDTTT
GQPTDVSYTQAQTTATYGQTAYATSYGQPPTGYTTTYSSSTQPTSYDGSSYSQQNTYGQ
ATVTTTQASYAAQSAYGTQAAYAPAYGQQPAATAPTSYSSTQPTSYDGSSYSQQNTYGQ
PSSYGQQGSYGQQSYGQQPPTSYPPQTGSYSQAPSQYSQQSSYGQQSSFRQDHPSS
MGVYGQESGGTGSGFGENKMSGPDNRCRGRGGGTRGGMSRGGRGGMGSAGERG
FNKFGGPMDEGPDLDLGPPVDPDEDSBNSAIYVGGLAUSVTLDDLADFFKQCTVKMN
FNKFGGPMDEGPDLDLGPPVDPDEDSBNSAIYVGGLAUSVTLDDLADFFKQCTVKMN

COMMENT

```
TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Murakawa, K., Fujimori, K., Tanai, H., Kimata, M., Watanabe, M., Hiraoka, S., Chiba, Y., Ishida, S., Ono, Y., Takiguchi, S., Watanabe, S., Yosida, M., Hotuta, T., Kusano, J., Kanehori, K., Takahashi-Fujii, A., Hara, H., Tanase, T., Nomura, Y., Togiya, S., Komai, F., Hara, R., Takeuchi, K., Arita, M., Inose, N., Musashino, K., Yuuki, H., Oshima, A., Sasaki, N., Aotsuka, S., Yoshikawa, Y., Matsunawa, H., Ichihara, T., Sabaki, N., Aotsuka, S., Yoshikawa, Y., Matsunawa, H., Ichihara, T., Shiohata, N., Sano, S., Moriya, S., Moniyama, H., Satoh, N., Takami, S., Terashima, Y., Suzuki, O., Nakagawa, S., Senoh, A., Mizoguchi, H., Goto, Y., Shimizu, F., Wakebe, H., Hishigaki, H., Watanabe, T., Sugiyama, A., Takemoto, M., Kawakami, B., Yamazaki, M., Watanabe, K., Kumagai, A., Itakura, S., Fukuzumi, Y., Fujimori, Y., Komiyama, M., Tashiro, H., Tanigami, A., Fujiwara, T., Ono, T., Yamada, K., Fuji, Y., Ozaki, K., Hirao, M., Ohmori, Y., Kawabata, A., Hikiji, T., Kobatake, N., Inagaki, H., Ikema, Y., Okamoto, S., Okitani, R., Kawakami, T., Nakajima, Y., Mizuno, T., Morinaga, M., Sasaki, M., Togashi, T., Oyama, M., Hata, H., Watanabe, M., Komatsu, T., Mizushima-Sugano, J., Satoh, T., Shirai, Y., Takahashi, Y., Nakagawa, K., Okumura, K., Nakaiima, Y., Yamashita, R., Nakaii, K., Yada, T., Nakamura, Y., Ohara, O., Isogai, T. and Sugano, S. Complete sequencing and characterization of 21,243 full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 (bases 1 to 1988)
28 Isogai, T., Otsuki, T. and Sugiyama, T.
29 Direct Submission
31 Submitted (24-OCT-2001) Takao Isogai, Helix Research Institute,
41 Submitted (24-OCT-2001) Takao Isogai, Helix Research Institute,
42 Genomics Laboratory; 1532-3 Yana, Kisarazu, Chiba 292-0812, Japan
(8-mail:genomics@hri.co.jp, Tel:81-438-52-3975, Fax:81-438-52-3986)
NEDO human cDNA sequencing project supported by Ministry of
BCONOMY, Trade and Industry of Japan; cDNA full insert sequencing:
Research Association for Biotechnology (RAB); cDNA library
construction: Helix Research Institute (HRI) (supported by Japan
Key Technology Center etc.); 5'- & 3'-end one pass sequencing: RAB,
HRI, and Biotechnology Center, National Institute of Technology and
the sequencing: RAB and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ishibashi, T., Kanehori, K., Yosida, M., Watanabe, S., Ishida, S., Ono, Y., Hotuta, T., Hiraoka, S., Murakawa, K., Takiguchi, S., Kusano, J., Watanabe, M., Fujimori, K., Tanai, H., Ishida, M., Yamashita, H., Chiba, Y., Sugiyama, T., Irie, R., Otsuki, T., Sato, H., Wakamatsu, A., Ishid, S., Yamamoto, J., Isono, Y., Kawai-Hio, Y., Saito, K., Nishikawa, T., Kimura, K., Matsuo, K., Nakamura, Y., Sekine, M., Kikuchi, H., Kanda, K., Wagatsuma, M., Takahashi-Fujii, A., Oshima, A., Sugiyama, A., Kawakami, B., Suzuki, Y., Sugano, S., Nagahari, K., Masuho, Y., Nagai, K., and Isogai, T., NEDO human cDNA sequencing project Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human cDNAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genet. 36 (1), 40-45 (2004)
                                                                                                                                                                     /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="peBLM1000034"
/cell type="peripheral blood mononuclear cells
(HPBMC5939)"
/clone_lib="PEBLM1"
/note="cloning vector: pME18SFL3~primary culture,
peripheral blood mononuclear cells"
12. .1814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
```

```
S
                                                                                                                          á
                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
문
                   S
                                                  밁
                                                                         Ś
                                                                                                   문
                                                                                                                                                     밁
                                                                                                                                                                             ş
                                                                                                                                                                                                      밁
                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 1012;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                         1400
                                                                                                                                                                                                                                                                                                           1340
                                                                                                                                                                                                                                                                                                                                                                                                               1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1100
 1700
                                                  1640
                                                                                                     1580
                                                                                                                                                      1520
                                                                                                                                                                                                         1460
                                                                                                                                                                                                                                                                                                                                                              1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1040
                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                           841
                                                                                                                                                                                                                                 199
                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           800
                                                                                                                             781
                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTTGCCTTCAATAAGCCTTGGTGGACC
                                                                                                                                                                                                                      TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                           ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                         GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACC
                                                                           CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG 900
                                                                                                                              GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT 840
                                                                                                                                                                             GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT 780
                                                                                                                                                                                                         GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                           TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                              ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                      TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1012; DB 9;
Pred. No. 6.9e-197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                          1459
                                                                                                                                                                                                                                                                                                           1399
                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                               1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . 1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           859
 1759
                         960
                                                   1699
                                                                                                      1639
                                                                                                                                                       1579
                                                                                                                                                                                                         1519
                                                                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
```

```
JOURNAL
PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 4
BC004817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pocns
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Straubberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G.,
Klausner, R.D., Collins, F.S., Wagner, L., Shemmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Worley, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,
Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,
Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,
Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,
Schnerch, A., Schein, J.E., Jones, S.J. and Marza, M.A.
Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-remail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Direct Submission

Submitted (21-MAR-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 2182)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EWS, mRNA (cDNA clone M
BC004817
BC004817.1 GI:13435962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BC004817 2182 bp mRNA linear PRI 29-JUN-2004
Homo sapiens Ewing sarcoma breakpoint region 1, transcript variant
EWS, mRNA (cDNA clone MGC:5432 IMAGE:3449145), complete cds.
                                                                                                                                                through the I.M.A.G.B. Consortium/LLNL
Series: IRAK Plate: 3 Row: 1 Column: 6
This clone was selected for full length
passed the following selection criteria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Baylor College of Medicine Human Genom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Strausberg, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                 Clone distribution:
                                                                                                                                                                                                                                                                                                                         Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu,
Kowis, C.R., Sneed, A.J., Martin, I
A.N., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequencing Center
Center code: BCM-HGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                         Web site: http://www.hgsc.bcm.tmc.edu/cdna/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 2182)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens
/organism="Homo sapiens"
/mol_type="mRNA"
                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                         MGC clone distribution 
E. Consortium/LLNL at:
                                                                                                                                                      length sequencing because
riteria: Hexamer frequency
                                                                                                                                                                                                                                                                                                                                                          Ħ
                                                                                                                                                                                                                                                                                                                                                       X., Hulyk,
R.G., Muzny,
                                                                                                                                                                                                                                   information can be found http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                 D S
                                                                                                                                                                                                                                                                                                                                                          3 .
                                                                                                                                                                                                                                                                                                                                                          Loulseged,
, Nanavati,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1811
                                                                                                                                                                                                                                                                                                                                                                                 ;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ġ
```

Ġ

```
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 1012; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDS
 1456
                                                                                                                                         1336
                                                                                                                                                                                                              1276
                                                                                                                                                                                                                                                                                  1216
                                                                                                                                                                                                                                                                                                                                                       1156
                                                                                                                                                                                                                                                                                                                                                                                                                             1096
                                                                       1396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1036
                                    481
                                                                                                        421
                                                                                                                                                                           361
                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       μ
                    TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCCTCC
                                                                                                                                                             ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                      CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                           CATCTACCTGGACAAGGAAACAGGGAAAGCCCAAAGGCGATGCCAAAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                        CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                             CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGACGCGGTGGAATGGGCAGCGCTGGAGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACC
 ACCCCGTGAGGGCAGAGGCCACCACCACCACCCACGAGGTGCAGGAGGCCCAGGAGGCCCAGGAGG
                                                                                                                                         ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGGGTCTGCC
                                                                                                                                                                                                            CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                  CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                     CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                         CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                       ACCCCGTGAGGGCAGAGGCATGCCACCACCTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; llarity 100.0%; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /db xref="MIM:133450"

/db xref="MIM:133450"

/db xref="MIM:133450"

/db xref="MIM:133450"

/translation="MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY

/translation="MASTDYSTYSQADATAPTAPOAYSQPVQGYGTGAYDTT

ATVTTTQASYAAQSAYGTQPAYPAYGAYATAPTRPQDGMKPTETSQPQSSTGGYNQ

PSLGYGQSNYSYPQVPGSYPMQPVTAPPSYPTSYSSTQPTSYDQSSYSQQNTYGQPS

SYGQQSSYGQQSSYGQDPTSYPPGYSYSQABSQYSQQSSFRQDHPSSNG

VYGQBSSYGQQSSYGQDPTSYPPGYSYSQABSQYSQQSSGYGQQSFRQDHPSSNG

VYGQBSGGFSGPGENNSMSGPDNRGRGRGGFDRGMSRAGGRGGRGGRGGNGSAGERGGR

VYGQBSGFSGPGENSMSMSGPDNRGRGRGGFDRGMSRAGERGGR

VYGGBSGGFSGLFNGLAGYSYBDPTAKAAVEMFDGKDFQSSKLKYGLARKKPP

MNSNRGGFDLDLGPPVDPBBDSDNSAITYQGLNSYTLDDLADFFKQCGVVKMNKR

TGQPMIHIYLDKETGKPKGDATYSYBDPTAKAAVEMFDGKDFQSFLKYGLARKKPP

MNSNRGGLPPREGRGMPPPLRGFGGPGGPGGPGRGRGRGGRGGDRGGFPRGPRGSRGN

PSGGNNQHRAGDMQCPNPGCGNQNFAMRTECNQCKAPKEGFLPPFPPPGGDRGRG

PSGGNNGGRGGGDGMDMGCPNPGCGNQNFAMRTECNQCKAPKEGFLPPFPPPGGDRGRG

GPGGNRGGRGGGMDMGGPRGGRFGGRGDRGFGGRGGPGGPGFPGP

LMEQMGGRRGGRGGDGAMDKGEHRQERRDRPY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /db_xref="hocube-
/db_xref="MIM:133450"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product="Ewing sarcoma breakpoint region 1, isoform
/protein_id="AAH04817.1"
/db_xref="GI:13435963"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="synonym: EWS"
/db_xref="LocusID:2130"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                codon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene="EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene="EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="Vector:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               etart-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1012; DB 9;
Pred. No. 6.8e-197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EWS"
                                    540
                                                                                                                                         1395
                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                    1215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                      480
                                                                                                                                                                           420
                                                                                                                                                                                                            1335
                                                                                                                                                                                                                                                                                1275
                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                         1155
                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1035
                                                                       1455
                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
CQ867364
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                  SG
                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CQ867364 2390 bp
Sequence 1 from Patent EP1455190.
CQ867364.1 GI:51997589
                                                                                                                                                                                                                                                                                                                                                                                                     Schering
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                   Modulation of the activity of nuclear
Patent: EP 1455190-A 1 08-SEP-2004;
Schering Aktiengesellschaft (DE)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Obendorf, M. and Wolf, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAGAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGTGGTGATCGTGGCAGAGGTGGCCCTCGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                             /organism="Homo sapiens"
/mol_type="unassigned DN
/db_xref="taxon:9606"
44...2014
                                                                                                                                                                                                                                                                                note="unnamed
                                                                                                                                                                                                                                                              codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (human)
                                                                                                                                                                                                                                                                            protein product"
                                                                                                                                                                                                                                                                                                                                 DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                           receptors via
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PAT 13-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
```

र्

밁 δ 밁

밁 S 유 S 밁 ঠ 밁 ঠ 밁 ঠ 밁 á

밁

```
δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                            ð
                                                    밁
                                                                      S
                                                                                             밁
                                                                                                                 δ
                                                                                                                                            밁
                                                                                                                                                           ક
                                                                                                                                                                                 片
                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 1012; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1000
         1960
                                                    1900
                                                                                                 1840
                                                                                                                                            1780
                                                                                                                                                                                        1720
                                                                                                                                                                                                                                     1660
                                                                                                                                                                                                                                                                                1600
                                                                                                                                                                                                                                                                                                                          1540
                                                                                                                                                                                                                                                                                                                                                                       1480
                                                                                                                                                                                                                                                                                                                                                                                                                 1420
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1240
                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                          901
                                                                                                                      841
                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                      601
                              961
                                                                                                                                                                  781
                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                  GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                            CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG 900
                                                                                                                                                                                        GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                        GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                  GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                           TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                       TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                               ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATCTACCTGGACAAGGAAAACAGGAAAAGCCCCAAAGGCGATGCCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAGAACTGGGCAACCCATGATCCA
                      TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                              GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                         GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                         GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                             AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                       TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                  ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                  CCGTGGTGGCCGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1012; DB 6;
Pred. No. 6.8e-197;
); Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2390;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
          2011
                                1012
                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1059
                                                                                                                                                                                                                                     1719
                                                                                                                                                                                                                                                                                 1659
                                                                                                                                                                                                                                                                                                                             1599
                                                                                                                                                                                                                                                                                                                                                                        1539
                                                                                                                                                                                                                                                                                                                                                                                                                  1479
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                            960
                                                                                                  1899
                                                                                                                                              1839
                                                                                                                                                                   840
                                                                                                                                                                                        1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 6
A36460
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                           밁
                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                 닭
                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                               S
밁
              ઈ
                                                               S
                                                                                     밁
                                                                                                      S
                                                                                                                                 밁
                                                                                                                                                        S
                                                                                                                                                                              밁
                                                                                                                                                                                                                          닭
                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                             1041
                                            1461
                                                                                       1401
                                                                                                                                   1341
                                                                                                                                                                                                                           1221
                                                                                                                                                                                                                                                                       1161
                                                                                                                                                                               1281
                                                                                                                                                                                                    301
                     541
                                                                 481
                                                                                                           421
                                                                                                                                                         361
                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                          981
                                                                                                                                                                                                                                                                                                                                                                                    13
                                                                                                                                                                                                                                                                                                                                                                                                                              Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A36460.1
```

```
Query Match
Best Local Similarity
Matches 1011; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutel
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Home
E 1 (Dases 1 to 2371)
E 1 (Dases 1 to 2371)
S Aurias, A., Delattre, O., Desmaze, C., Melot, T., Peter, M.,
Plougastel, B., Thomas, G. and Zucman, J.
NUCLEIC ACID CORRESPONDING TO A GENE OF CHROMOSOME 22 INV
RECURRENT CHROMOSOMAL TRANSLOCATIONS ASSOCIATED WITH THE
DEVELOPMENT OF CANCEROUS TUMORS
L Patent: WO 9323549-A 1 25-NOV-1993;
CENTRE NAT RECH SCIENT (FR)
Other publication FR 2691475
Other publication FR 2691475
Other publication FR 2691475
Other publication JP 8500964T 960206.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1 :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATGGATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGA
ACCCCGTGAGGGCAGAGGCCATGCCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                       ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                             CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                           CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCTTFAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGACGCGGTGGAATGGGCAGCGCTGGAGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                       CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
/dev_stage="FOETUS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1. .2371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GI:2293778
                                                                                                                                                                                                            TOTOCOTTGOTOGGAAGAGCOTOCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1010.4; DB 6;
Pred. No. 1.4e-196;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2371 bp
W09323549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ASSOCIATED WITH THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OF CHROMOSOME 22 INVOLVED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2371;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1040
                                                                                        540
                                                                                                                                                                                                                                                                                            1340
                                                                                                                                                                                                                                                                                                                                                                         1280
                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                 1520
                                                                                                                                  1460
                                                                                                                                                                     480
                                                                                                                                                                                                              1400
                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ħ
            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

Query Match 99.8%; Score 1010.4; DB 6; Length 2371; Best Local Similarity 99.9%; Pred. No. 1.4e-196; Matches 1011; Conservative 0; Mismatches 1; Indels 0; Gaps 0; Qy 1 AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC 60	ORGANISM Unknown. Unclassified. Unclassified. Unclassified. REFERENCE 1 (bases 1 to 2371) AUTHORS Aurias,A., Delattre,O., Desmaze,C., Melot,T., Peter,M., Ploougastel,B., Thomas,G. and Zucman,J. TITLE Nucleic acid corresponding to a gene of chromosome 22 involved in recurrent chromosomal translocations associated with the development of cancerous tumors, and nucleic acids of fusion resulting from said translocations JOURNAL Patent: US 5968734-A 1 19-OCT-1999; FEATURES Location/Qualifiers source //organism="unknown" /mol_type="unassigned DNA"	RESULT 7 AR080100 LOCUS AR080100 2371 bp DNA linear PAT 31-AUG-2000 DEFINITION Sequence 1 from patent US 5968734. ACCESSION AR080100 VERSION AR080100.1 GI:10006835 KEYWORDS	Qy 901 GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAAGAAGAAGAGGACGACGACGACGACC 960 Db 1881 GGGCCCCCTTGGACCTTTGATGGATGGAAGAAGAAGAAGAAGAAGAAGAAGAACCTTGGACCC 1940 Qy 961 TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGGACCCGAGAGATCGGCCCTAC 1012 Db 1941 TGGAAAAAATGGATAAAGGCGAGCACCGTCAGGAGACCCGAGAGATCGGCCCTAC 1992	Qy 781 GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGAGACAGAGGTGGCTT 840	Qy 601 TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA 660
RESULT 8 AX411125 AX411125 AX411125 AX411125 ACCESSION ACCESSION ACCESSION AX411125 ACCES	Qy 781 GGATCGTGGTCGCGGTGGAATGTTCAGAGGTGGCCGTGGAGACAGAAGGTGGCTT 840	OY 661 GTGCAACCAGTGTAAGGCCCGAAAGCCTGAAGGCTTCCTCCGGCCACCCTTTCCGGCCCCC 720	Qy 541 AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAAACGTCCCAGCACCGAGC 600	Oy 421 ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG 480	Qy 241 CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA 300

```
JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SdC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
polyA_signal
                                                                                            polyA_signal
                                                                                                                                                                                        misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           φ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HSEWS
H. sapiens
X66899
X66899.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (26-MAY-1992) O. Delattre, Lab. de Genet. des
Inst. Curie, 26 rue D'Ulm, 75231 Paris Cedex, FRANCE
On Sep 23, 1994 this sequence version replaced gi:31279
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 (bases 1 to 2371)
Delattre,O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gene fusion with an ETS DNA-binding domain caused by chromosome translocation in human tumours Nature 359 (6391), 162-165 (1992)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Delattre,O., Zucman,J., Plougastel,B., Desmaze,C., Melot,T., Peter,M., Kovar,H., Joubert,I., de Jong,P., Rouleau,G., Aurias,A. and Thomas,G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bukaryola; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RNA binding protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens (human)
                                                                                                                                                                                                                                                /Godon_start=1
/Godon_start=1
/protein id="RNA binding protein"
/protein id="CAA47350.1"
/protein id="CAA47350.1"
/db_xref="GI:31280"
/db_xref="GI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /mol type="mRNA"
/db xref="taxon:9606"
/chromosome="22q12"
/clone="BF1AC5"
                                                        /bound_moiety="RNA"
2162. .2167
/gene="EWS"
      /evidence=experimental 2350. .2355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GI:547565
                                                                                                                                                                                            LMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"
1127. .1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'gene="EWS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        44. .2014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene="EWS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /tissue type="brain"
/clone Tib="cDNA, Stratagene
/dev_stage="foetus"
|. .2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EWS mRNA.
                                                                                                                                                           /gene="EWS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  936206"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-JUN-1995
```

polyA_site

/evidence=experimental

```
유
                                                   밁
                                                                       Ş
                                                                                                      밁
                                                                                                                        8
                                                                                                                                                       밁
                                                                                                                                                                       ક
                                                                                                                                                                                                  밁
                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                               र्
                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  श
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 1011; Conserv
  1960
                                                                                                                                                        1780
                                                                                                                                                                                                          1720
                                                                                                                                                                                                                                                                                                                                                                   1540
                                                                                                                                                                                                                                                                                                                                                                                                                      1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1420
                                                                                                                                                                                                                                                            1660
                                                                                                                                                                                                                                                                                                               1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1120
                                                    1900
                                                                                                      1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1000
                         961
                                                                           901
                                                                                                                             841
                                                                                                                                                                                781
                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC 60
TGGAAAAATGGATAAAGGCGAGCGACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                    CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                    GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                           GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                               GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                              AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATGATCTGGCAGA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATGGATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA 120
                                                               GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                          GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                              TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                 AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCCCGTGAGGGCAGAGGCATCCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATCTACCTGGACAAGGAAACAGGAAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAAACTGGGCAACCCATGATCCA 240
                                                                                                      CCGTGGTGGCCGGGGCATGGACCGAGGTGGCCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                       GGATCGTGGTGCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                         GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCCCGTGAGGGCAGGCATGCCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 1359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1010.4; DB 9; Pred. No. 1.4e-196;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ŕ
                                                                                                   1899
                                                                                                                                                                                                         1779
                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1119
                                                                                                                                                       1839
                                                                                                                                                                                                                                                            1719
                                                                                                                                                                                                                                                                                                              1659
                                                                                                                                                                                                                                                                                                                                                                 1599
                                                                                                                                                                                                                                                                                                                                                                                                                   1539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1179
                                                                             960
                                                                                                                                                                               840
                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 10
CQ850483
LOCUS
DEFINITION
ACCESSION
 밁
                  S
                                                                    S
                                                                                             밁
                                                                                                                        S
                                                                                                                                                     맑
                                                                                                                                                                       ક
                                                                                                                                                                                                       밁
                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                           닭
                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 1010; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                   1318
                                                                                                                                                                                                                                                           1138
                                                                                                                                                                                                                                                                                                              1078
                                                                                                                                                                                                                                                                                                                                                               1018
                        601
                                                                                                                                                                               421
                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CQ850483
Sequence 952
CQ850483
CQ850483.1 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pull-length human cDNA
Patent: EP 1447413-A 952 18-AUG-2004;
Research Association for Biotechnology
Location/Qualifiers
1. .2026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Isogai,T., Yamamoto,J., Nishikawa,T., Isono,Y., Otsuki,T., Wakamatsu,A., Ishii,S., Nagai,K. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo
            TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCCTGGAGAACAGA
                                                                TCCTGGGGGACCCATGGGTCGCATGGGAGGCCCGTGGAGGAGATAGAGGAGGCTTCCCCTCC
                                                                                                                                                                      ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                       ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                      ACTTAAAGTCTCCCCTTGCTCCGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                        CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGGAGCAA
                                                                                                                                                                                                                                                                                                                            CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                              CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACCTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                 CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                       ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                  CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Homo sapiens"
/mol_type="unassigned DN/
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             from Patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1008.8; DB 6;
Pred. No. 3.1e-196;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (db)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sugiyama, T., Irie, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23-AUG-2004
                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                   1017
                        660
                                                 1437
                                                                                                                                                                                                         1257
                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                           600
                                                                                                  1377
                                                                                                                             540
                                                                                                                                                       1317
                                                                                                                                                                              480
                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                           1197
                                                                                                                                                                                                                                                                                                              1137
                                                                                                                                                                                                                                                                                                                                                                1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

0

0

```
TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 11
AK127624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                    source
                                                                                                                                                                 Direct Submission

Submitted (15-JUL-2003) Takao Isogai, FLJ Project(HRI Team); 2-6-7

Kazusa-Kamatari, Kisarazu, Chiba 292-0818, Japan

(E-mail:genomics@hri.co.jp, Tel:81-438-52-3975, Fax:81-438-52-3986)

NEDO human cDNA sequencing project supported by Ministry of Economy, Trade and Industry of Japan; cDNA full insert sequencing: Research Association for Biotechnology (RAB); cDNA library construction: Helix Research Institute (HRI) (supported by Japan Key Technology Center etc.); 5'- & 3'-end one pass sequencing: RAB, HRI, and Biotechnology Center, National Institute of Technology and Evaluation; clone selection for full insert sequencing: HRI and RAB; annotation: Reverse Proteomics Research Institute, HRI and RAB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Oshima, A., Takahashi-Pujii, A., Tanase, T., Imose, N., Takeuchi, K., Arita, M., Musashino, K., Yuuki, H., Hara, H., Sugiyama, T., Irie, R., Otsuki, T., Sato, H., Wakamateu, A., Ishii, S., Yamamoto, J., Isono, Y., Kawai-Hio, Y., Saito, K., Nishikawa, T., Kimura, K., Yamashita, H., Watsuo, K., Nakamura, Y., Sekine, M., Kikuchi, H., Kanda, K., Sugituma, M., Murakawa, K., Kanehori, K., Sugiyama, A., Kawakami, B., Suzuki, Y., Sugano, S., Nagahari, K., Masuho, Y., Nagai, K. and Isocai, T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2026 bp
Homo sapiens cDNA FLJ45722 fis,
to RNA-binding protein EWS.
AK127624
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AK127624.1 GI:34534618 oligo capping; fis (full insert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGTGGTGATCGTGGCAGAGGTGGCCCTCGTTGGTGGCATGCGGGGAGGAGAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGCAACCAGTGTAAGGCCCCAAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGCAACCAGTGTAAGGCCCCAAAGGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 2026)
ogai, T. and Yamamoto, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human cDNA sequencing
/cell_type="coronary artery smooth muscle cells (HCASMC)"
/clone_lib="HCASM2"
/note="cloning vector: pME18SFL3-primary culture, coronary
                                                                         /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eutheria;
                                                          clone="HCASM2008154"
                                                                                                                organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mRNA linear clone HCASM2008154,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRI 19-FEB-2004 weakly similar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                  밁
                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                    밁
                                                                                         S
                                                                                                                                                             5
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                   몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 1010; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1138
                                                                                                                                                                                                          1618
                                                                                                                                                                                                                                                                                    1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1078
                                                                                                                                                                                                                                                                                                                                                                                                                                     1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            838
                       961
                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121 CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGGCGCCAGAGATCCGGCCCTAC
                                                                               GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC 960
                                                                                                                                                           CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                         GGATCGTGGTGCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCCCGTGAGGGCAGAGGCATCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                            GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                        GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              artery smooth muscle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1008.8;
Pred. No. 3.1e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cells"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8; DB 9;
3.1e-196;
2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
```

1197

360

1137

240

1017 180 120

897 8

1077

300

1012

1677

840

1617

780

1557

720

1497 660 1437 600 1377 540 1317 480 1257 420

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                     र्
                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
ORGANISM
                                                                                                                         문
                                                                                                                                                        र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
      ş
                                       밁
                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                             1492
                                                                                                                         1432
                                                                                                                                                                                                          1372
                                                                                                                                                                                                                                                                                        1312
                                                                                                                                                                                                                                                                                                                                                                       1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cal Similarity 99.
        601
                                                                                                                                                                   481
                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CQ730352
Sequence 162
CQ730352
CQ730352.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Venter, C.J., Adams, M.C., Li, P.W. and Myers, E.W.
Kits, such as nucleic acid arrays, comprising a majority of
Kits, such as nucleic acid arrays, comprising a majority of
humanexons or transcripts, for detecting expression and other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patent: WO 02068579-A 16286 06-SEP-2002; PE Corporation (NY) (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
      TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                           AAGAGGACCCCGGGGTTCCCGAGGGAAACCCCCTCTGGAGGAGGAAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                             ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                            CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATCTACCTGGACAAGGAAAACAGGAAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACC
                                             AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                              TCCTGGGGGACCCATGGGTCGCATGGGAGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                ACCCCGTGAGGGCAGAGGCATGCCACCACCCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16286 from Patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GI:42303963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1001; DB 6;
Pred. No. 1.2e-194;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2326 bp DNA
nt WO02068579.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 2326;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-FEB-2004
                                           1551
                                                                                                                         1491
                                                                                                                                                                                                        1431
                                                                                                                                                                                                                                                                                      1371
                                                                                                                                                                                                                                                                                                                                                                   1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1011
                                                                                 600
                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                     JOURNAL
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
BC072442
                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                      Strauberg, R. L., Feingold, B. A., Grouse, L. H., Derge, J. G.,

Klausner, R. D., Colline, F. S., Wagner, L., Shenmen, C. M., Schuler, G. D.,

Altschul, S. F., Zeeberg, B., Buctow, K. H., Schaefer, C. F., Bhat, N. K.,

Hopkine, R. F., Jordan, H., Moore, T., Wax, S. I., Wang, J., Hsieh, F.,

Diatchenko, L., Marusine, K., Farmer, A. A., Rubin, G. M., Hong, L.,

Stapleton, M., Soares, M. B., Bonaldo, M. F., Casavant, T. L.,

Schetz, T. E., Brownstein, M. J., Usdin, T. B., Toshiyuki, S.,

Carninci, P., Prange, C., Raha, S. S., Loquellano, N. A., Peters, G. J.,

Abramson, R. D., Mullahy, S. J., Bosak, S. A., McEwan, P. J.,

McKernan, K. J., Malek, J. A., Gunaratne, P. H., Richards, S.,

Worley, K. C., Hale, S., Garcia, A. M., Gay, L. J., Hulyk, S. W.,

Villalon, D. K., Muzny, D. M., Sodergren, B. J., Lu, X., Gibbs, R. A.,

Fahey, J., Helton, E., Ketteman, M., Young, A. C., Shevchenko, Y.,

Sanchez, A., Whiting, M., Madan, A., Young, A. C., Shevchenko, Y.,

Bouffard, G. G., Blakesley, R. W., Touchman, J. W., Green, E. D.,

Dickson, M. C., Rodriguez, A. C., Grimwood, J., Schmutz, J., Myers, R. M.,

Schnerch, A., Schein, J. E., Jones, S. J. and Marra, M. A.

Generation and initial analysis of more than 15,000 full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapien
EWS, mRNA (
BC072442
BC072442.1
Email: cgapbs-r@mail.nih.gov
                    NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
                                                                             Direct Submission
Submitted (01-UUN-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                 human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 2164)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BC072442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGGGCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAAGAAGACGTGGAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAAGAGGACGTGGAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCCCGCCACCCCTTTCCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCGTGGTGGCCGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -ccgregregccegegcaregaccgaegregctttegregaegaagacgaegregcccre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                 (bases 1 to 2164)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2442 2164 bp mRNA linear appiens Ewing sarcoma breakpoint region 1, tra mRNA (cDNA clone MGC:87992 IMAGE:6047805), com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ar PRI 30-JUN-2004
transcript variant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
```

```
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 1000; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                   1020
                                       121
                                                                                                                                                                                                                             960
                                                                                                                                                              19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: nise_mgc@nhgri.nih.gov
Akhter, N., Ayele, K., Becketrom-Sternberg, S.M., Benjamin, B.,
Akhter, N., Ayele, K., Becketrom-Sternberg, S.M., Brinkley, C., Brooke, S.,
Blakesley, R. W., Bouffard, G.G., Breen, K., Brinkley, C., Brooke, S.,
Dietrich, N.L., Granite, S., Guan, X., Gupta, J., Haghighi, P.,
Hansen, N., Ho, S.-L., Karlins, E., Kwong, P., Laric, P., Legaspi, R.,
Hansen, N., Ho, S.-L., Karlins, E., Kwong, P., Laric, P., Legaspi, R.,
Maduro, Q.L., Masiello, C., Masker, B., Mastrian, S.D., McCloskey, J.C.,
McDowell, J., Pearson, R., Stantripop, S., Thomas, P.J., Touchman, J.W.,
Tsurgen, C., Vogt, J.L., Walker, M.A., Wetherby, K.D., Wiggins, L.,
Touchen, C., Wogt, J.L., Walker, M.A., Wetherby, K.D., Wiggins, L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tissue Procurement: ATCC/DCTD/DTP
CDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: National Institutes of Health Intramural
Sequencing Center (NISC),
Gaithersburg, Maryland;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Clone distribution: MGC clone distribution information can be four through the I.M.A.G.E. Consortium/LIMI at: http://image.llnl.gov Series: IRAK Plate: 174 Row: g Column: 18
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 4885224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Young,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Web site: http://www.nisc.nih.gov/
CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                           CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA 120
                                                                                                   CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                 AGGAGGACGCGGTGGAATGGGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACC
                                                                                                                                                                                                                                                                                  AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGNP
SGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGDRGRGG
PGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPPGPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SYGQQSSYGQQSSYGQQPPTSYPPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMG
VYGQESGGFSGPGENRSMSGPDNRGRGRGGFDRGGMSRGGRGGGAGAGERGGAF
VYGQESGGFSGPGENRSMSGPDRBSDNSAIYVGGLADSVTLDLADFFKQGFQVVKMKRF
GGPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GQPTDVSYTQAQTTATYGQTAYATSYGQPPTGYTTTAPQAYSQPVQGYGTGAYDTTT
ATVTTTQASYAAQSAYGTQPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQ
PSLGYGQSNYSYPQVPGSYPMQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /product="Ewing sarcoma breakpoint region 1, isoform
/protein_id="AAH72442.1"
/db_xref="GI:48734727"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="synonym: EWS"
/db_xref="LocusID:2130"
/db_xref="MIM:133450"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /clone="MGC:87992 IMAGE:6047805"
/tissue_type="Skin, melanotic me
/clone_lib="NIH_MGC_72"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         organism="Homo sapiens"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene="EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene="EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zhang, L.-H. and Green, E.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     translation="MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      note="Vector:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         xref="MIM:133450"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    xref="LocusID:2130"
                                                                                                                                                                                                                                                                                                                                                                                      98.4%;
98.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  start=1
                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                    Score 996; DB 9; ]
Pred. No. 1.3e-193;
0; Mismatches 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   pCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                melanoma."
                                                                                                                                                                                                                                                                                                                                                                                                                       Length 2164;
                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EWS"
                                                                                                                                                                                                                             1019
                                                                                                   1079
                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                        0
```

밁 δ 밁 ş

ફ

```
RESULT 14
AK056309
LOCUS
                                                                SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     よ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   맑
                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                     REFERENCE
                                                                                                                                ACCESSION
                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                           문
                                                                                                 KEYWORDS
                                                                                                                 VERSION
    AUTHORS
                                                                                                                                                                                                                                                                                                                        1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1140
                                                                                                                                                                                                                                                                                                                                                                                     1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1080 CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA 1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
Ota, T.,
                                                              oligo capping; fis (full insert sequence).
Homo sapiens (human)
Homo sapiens
                                                                                                                              to RNA-BINDING PROTEIN AK056309
                                                                                                                                                              AK056309 2189 bp
Homo sapiens cDNA FLJ31747 fis,
                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                              AK056309.1 GI:16551673
                                                                                                                                                                                                                                                                               TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                        GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                         CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                       CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGAGGACCCCGGGGTTCCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCTGGGGGACCCATGGGTCGCATGGGAGGGGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCCTCCAATGAACAGTATGCGGGGTTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGATCGTGGTGCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
    Suzuki, Y., Nishikawa, T.,
                                                                                                                                                EWS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                               mRNA linear clone NT2RI2007377,
    Otsuki, T., Sugiyama, T., Irie, R.,
                                                                                                                                                              PRI 30-JAN-2004
highly similar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                            1919
                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                       1859
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
```

```
TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  L Unpublished

I to 2189)

I dbases 1 to 2189)

I losses 2 to 100 losses 1 losses 2 los el losses 2 los el losses 2 losses 2 los el lo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sekine, M., Obayashi, M., Nishi, T., Shibahara, T., Tanaka, T., Ishii, S., Yamamoto, J., Saito, K., Kawai, Y., Isono, Y., Nakamurä, Y., Nagahari, K., Murakami, K., Yasuda, T., Iwayanagi, T., Wagatsuma, M., Shiratori, A., Sudo, H., Hosoiri, T., Kaku, Y., Kodaira, H., Kondo, H., Shiratori, A., Sudo, H., Hosoiri, T., Kaku, Y., Kodaira, H., Kondo, H., Shiratori, A., Sudo, H., Hosoiri, T., Kaku, Y., Kodaira, H., Kondo, H., Shiratori, K., Takahashi, M., Kanda, K., Yokoi, T., Furuya, T., Kikkawa, M., Yamazaki, M., Ninomiya, K., Ishibashi, T., Yamashita, H., Kimata, M., Watanabe, M., Hiraoka, S., Chiba, Y., Ishida, S., Cono, Y., Takiguchi, S., Watanabe, S., Yosoida, M., Hotuta, T., Kusano, J., Kanehori, K., Takahashi-Fujii, A., Hara, H., Tanase, T., Nomura, Y., Togiya, S., Komai, F., Hara, R., Takeuchi, K., Arita, M., Imose, N., Musashino, K., Yuuki, H., Oshima, A., Sasaki, N., Aoteuka, S., Yoshikawa, Y., Matsunawa, H., Ichihara, T., Sasaki, N., Aoteuka, S., Yoshikawa, Y., Matsunawa, H., Ichihara, T., Sugiyama, A., Takemoto, M., Kawakami, B., Yamazaki, M., Watanabe, T., Sugiyama, A., Takura, S., Fukuzuni, Y., Fuhanai, Y., Komiina, Y., Suzuki, O., Nakagawa, S., Senoh, A., Mizoguchi, H., Tanigami, A., Fujiwara, T., Ono, T., Yamada, K., Fujii, Y., Ozaki, K., Hirao, M., Ohmori, Y., Kawabata, A., Hikiji, T., Kobatake, N., Nakajima, Y., Mizuno, T., Worinaga, M., Sasaki, M., Togashi, T., Oyama, M., Hata, H., Watanabe, M., Sasaki, M., Togashi, T., Shirai, Y., Takahashi, Y., Nasuho, Y., Yamashita, R., Nakai, K., Yada, T., Nakamura, Y., Ohara, O., Isogai, T. and Sugano, S. Complete sequencing and characterization of 21,243 full-length human company.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ishibashi, T., Kanehori, K., Yosida, M., Watanabe, S., Ishida, S., Ono, Y., Hotuta, T., Hiraoka, S., Murakawa, K., Takiguchi, S., Kusano, J., Watanabe, M., Fujimori, K., Tanai, H., Ishida, M., Yamashita, H., Chiba, Y., Sugiyama, T., Irie, R., Otsuki, T., Sato, H., Wakamatsu, A., Ishii, S., Yamamoto, J., Isono, Y., Kawai-Hio, Y., Saito, K., Nishikawa, T., Kimura, K., Matsuo, K., Nakamura, Y., Sekine, M., Kikuchi, H., Kanda, K., Wagatsuma, M., Takahashi-Fujii, A., Oshima, A., Sugiyama, A., Kawakami, B., Suzuki, Y., Sugano, S., Nagahari, K., Masuho, Y., Nagai, K. and Isogai, T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wakamatsu, A., Hayashi, K., Sekine, M., Obayashi, M., N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       human cDNAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human cDNA sequencing project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Genet. 36 (1), 40-45 (2004)
                                                                                                                                                                /cell_type="teratocarcinoma"
/clone lib="NT2RI2"
/clone lib="NT2RI2"
/note="cloning vector: pME18SFL3-mRNA from NT2 neuronal
precursor cells treated 2-weeks mitotic inhibitor after
5-weeks retinoic acid (RA) induction.-majorly NT2 neuron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="NTZRI2007377"
note="unnamed protein product"
codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                              line="NT2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sato, H., Nagai, K., Kimura, K., Makita, H. ishi, T., Shibahara, T., Tanaka, T.,
```

TITLE

FEATURES

O

g

U Ø U 0

781 GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT 840

COMMENT

```
/protein_id="BAB71145.1"
/db_xref="GI:16551674"
/trānslation="WASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY
/GDPTDYSYTTQAYTGAYAGTGYGADPTVEGTSGAYTTPTABAAYGQQSYGTY
```

OBIGIN	APDTVS APDTTA APDTTTA TGSYNGY TYGQPSS HPSSNGY RGGRNCP RGRNKETG RKKPPNN GSRRNES DRGRGGP GPPGPLM	GOPTDVSYTQAQTTATYGQTAXATŠYGQPĒTVEGTSTĞYTTPTAPQAYSQPVĞGYGTG AXDITTATVTTTQASYAAQSAYGTQPAXPAX YQQDPAATAPTRPQDGNKFTETSQPQSS TGGYKYQPSLSYGQQSYSYPQVBGX YEMQPUTAPPSYPPTSYSTQPTSXYDQSYSQQN TYGQPESYGQQSSYGQQSSYGQQPPTSYPPQTGSYSQAPSQYSGXSSYGQQSSFRQD HPSSNGVYGQSSGFSGFERNSMSGFDNRGGRGGGFDRGGMSGGRGGGRGGRGAGE RGGFRKFGGFMDEGFDLDLGFPVDPDEDSDSNAIYVQGLNDSYTLDDLADFFKQCGVV KMNKRTGQPMIHIYLDKETGKPKFDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLA RKKPFMNSNRGGLPFREGRKPPPLRGGFGGFGGFPGRAGGFPGRGGRGGDRGGFPFRGFR GSRGNFSGGGNVQHAAGDMQCFNFGCGNQNFAMRTECNQCKAPKPEGFLFPFFPPFGF GSRGNRGGFGGMRGGRGGDMQCFNFGGGRGGDRGGFAGGGRGGDRGGFDF DRGRGGFGGMRGGRGGLMDRGGPFGGMFEGGRGGDRGGFRGGFG GPFGFLMEMGGRGGFGKMDKGEHRQERRDRPY"
ORIGIN		A. COOTO GOO. DB D. TOSSET 3100
Query macch Best Local (Matches 100)	ocal Similarity 98. conservative	.4%; Score 996; DB 9; Length 2189; .8%; Pred. No. 1.3e-193; e 0; Mismatches 12; Indels 0; Gaps 0;
Ş	1 AGGACGCGGTGGAA	AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC 60
Db	993 AGGAGGACGCGGTG	GAATGGGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC 1052
문 성	61 CATGGATGAAGGAC	CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTTGTAGATCAGATGAAGACTCTGA 120 CATGGATGAAGGACCAGATCTTGATTTTAGCCCCACCTTGTAGATCAGATGAAGACTCTTGA 1112 CATGGATGAAGGAGCAGCAGTTTGATTTTAGCCCCACCTTGTAGATCAGATCAGATGAAGATCAGATGAGAGATGA
§	121 CAACAGTGCAATTT	ATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA 180
Db	1113 CAACAGTGCAATTT	CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA 1172
δ	181 CTTCTTTAAGCAGT	CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA 240
망	1173 CTTCTTTAAGCAGT	GTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA 1232
용 정	241 CATCTACCTGGACA	CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA 300
δ.	301 CCCACCCACTGCCA	AGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTTCAAGGGAGCAA 360
DЪ	1293 CCCACCCACTGCCA	CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 1352
8	361 ACTTAAAGTCTCCC	ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC 420
Ъ	1353 ACTTANAGTCTCCC	TTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC 1412
용 &	421 ACCCCGTGAGGGCA	ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG 480
Ø.	481 TCCTGGGGGACCCA	TGGGTCGCATGGGAGGCCGTGGAGGAGGATAGAGGAGGCTTCCCTCC 540
Db	1473 TCCTGGGGGACCCA	TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC 1532
Ş.	541 AAGAGGACCCCGGG	AAGAGGACCCCGGGGTTCCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC 600
5	1533 AAGAGGACCCCGGGG	GITTCCCGAGGGAACCCCCTCTGGAGGGAAGGGAACGTCCAGCACCGAGC 1592
, 5	601	
•	: ;	
B 8	661 GTGCAACCAGTGTAJ	GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC 720
ş	721 GGGTGGTGATCGTGG	GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT 780
	1713 GGGTGGTGATCGTGG	GCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT 1772
		いませんだけがあれています。

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 15
CR456490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SdO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sanger Institute name: pGEM.EWSR1
Homo sepiens CDNA sequence. This sequence was generated as part of
The Wellcome Trust Sanger Institute program to isolate cDNA clones
representing the full length open reading frame of well annotated
protein coding genes on human chromosome 22. For more information
see http://www.sanger.ac.uk/HGP/Chr22/.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 2189)
Colling, J.E., Wright, C.L., Edwards, C.A., Davis, M.P.,
Cole, C.G., Goward, M.E., Aguado, B., Mallya, M., Mokrab.
Huckle, E.J., Beare, D.M. and Dunham, I.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (24-MAY-2004) Sanger Institute, Hinxton, Cambridgeshire, CB10 1SA, UK. E-mail enquiries: c22g@sanger.ac.uk Manuscript
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDNA; chromosome 22; ORF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CR456490
CR456490.1 GI:47678510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CR456490 2189 bp r
Homo sapiens EWSR1 full length open
(CDNA clone C22ORF:pGEM.EWSR1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCCGAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens (human)
              /gene="EWSR1"
/codon_start=1
/codon_start=1
/proteIn_id="CAG30376.1"
/proteIn_id="CAG30376.1"
/proteIn_id="CAG30376.1"
/db_xref="GI:47678511"
/db_xref="GI:47678511"
/db_xref="GI:47678511"
/db_xref="GI:47678511"
/db_xref="GI:47678511"
/db_xref="GI:47678511"
/db_xref="GI:4767851"
/proteIn_id="MASTDYSTYSQADAAQQGYSAYTAPTREQDAYSQPVQGYSTGAYDTTT
/proteIn_id="MASTDYSTYSQADAAQQGYSAYTAPTREQDAYSQPVQGYSTGAYDTTT
/proteIn_id="MASTDYSTYSQADAAQQGYSAYTAPTREQDAXSYSQASSTGQDNTYGQPS
/proteIn_id="MASTDYSTYPAPSYPPTSYSTQPTSYPDTSYSSTGATAPTREQDAGSSYGQASSTRQDHPSSNG
/proteIn_id="Mastay"
/proteIn_i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /gene="EWSR1"
34. .2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /mol_type="mRNA"
/db_xref="taxon:9606"
/chromosome="22"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Homo sapiens"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    dar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       clone="pGEM.EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            host="JM109"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              reading
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear
g frame
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRI 25-MAY-2004
(ORF) cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Grinham, J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
```

```
S
                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                    밁
                                                                      5
                                                                                                       멍
                                                                                                                                  S
                                                                                                                                                                                   S
                                                                                                                                                                                                                  片
                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                      맑
유 성
                                                                                                                                                            밁
                                                                                                                                                                                                                                                                        1647
                                                                                                                                                                                                                                                                                                                           1587
                                                                                                                                                                                                                                                                                                                                                                                1527
                                                                                                                                                                                                                                                                                                                                                                                                                                      1467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1047
                                                    1887
                                                                                                                                                                                                                   1707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1287
                                                                                                           1827
                                                                                                                                                              1767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                             901
                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                         TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                               GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAGGACC
                                                                                                                                      CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                             GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                  GGGTGGTGATCGTGGCAGAGGTGGCCCTCGTGGTGGCATGCGGGGAAGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                        GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                     GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                             TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                              TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCCCGTGAGGGCAGAGGCATGCCACCACCTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATCTACCTGGACAAGGAAACAGGAAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCGAGAGATCGGCCCTAC 1998
                                                                                                                                                               GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1046
                                                                                                           1886
                                                                                                                                                                                                                      1766
                                                                                                                                                                                                                                                                         1706
                                                                                                                                                                                                                                                                                                                             1646
                                                                                                                                                                                                                                                                                                                                                                                  1586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                960
                                                                                                                                      900
                                                                                                                                                                 1826
                                                                                                                                                                                          840
                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                       1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
```

Query Match Best Local Similarity Matches 1000; Conser

98.4%; ilarity 98.8%; Conservative

ç,

Score 996; DB 9; Length 2189; Pred. No. 1.3e-193; 0; Mismatches 12; Indels

0

Gaps

```
Regult
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                              ი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
            2111554
2111654
211654
211654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
      1010
1010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10010.4
10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       seq length: 0 seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N_Geneseq_16Dec04:*
1: geneseqn1980s:*
2: geneseqn1990s:*
3: geneseqn2000s:*
      110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

1100000

110000

110000

110000

110000

110000

110000

110000

1100000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

1100000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110000

110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9:
11:
12:
13:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4390206 seqs, 2959870667 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IDENTITY_NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-791-017A-1_COPY_1000_2011
1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          February 20,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     aggacgcggtggaatgggca....agcgcagagatcggccctac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                geneseqn2002as:*
geneseqn2002bs:*
geneseqn2003as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 geneseqn2003cs:*
geneseqn2003ds:*
geneseqn2004as:*
geneseqn2004bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               geneseqn2000s:*
geneseqn2001as:*
geneseqn2001bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             genesegn2003bs:*
      GenCore version (c) 1993 - 2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2005, 00:31:32 ; Search time 490.802 Seconds (without alignments)
12206.093 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gapext 1.0
                                                                                                                                                                                                                                                                                                                                              თთთ
                                                                                                                                                                                                                                                                                                                                                                                                                                   ADA53506
AAS62262
ADQ86032
ADS16277
AAQ50643
AAS70647
      ABK84628
ABK64822
ABN97274
ACN40903
ADP56333
ADF56333
ACN37537
ACN37537
AAR562623
ABI99383
AAL26725
ACN86697
AAQS06446
ACH40479
ACH40479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15.1.6
Compugen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8780412
Aag50643 Human Ews
Aas70647 DNA encod
Abk84628 Human cDN
Abk64822 Human ben
Abh97274 Gene #377
Acn40903 Tumour-as
Adr07446 Full leng
Adp55333 Human PRO
Acn37537 Tumour-as
Aas62623 CDNA sequ
Abi99383 Mouse isc
Aal26725 Human bre
Acn88697 Breast ca
Aag50646 Human Ews
Ach40478 Human Ews
Ach40478 Human adu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ada53506 Human cod
Aas62262 cDNA sequ
Adq86032 Human tum
Ads16277 Human cDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   era i
Ige
```

		o									a	Ω												
.45	44	43	42	41	40	39	38	37	36	3 5	34	33	32	31	30	29	28	27	26	25	24	23	22	21
176.6	176.8	212.4	253	253	253	253	253	253	253	253	254.2	258.4	258.4	258.4	258.4	258.4	258.4	258.4	258.4	258.4	269.8	304.6	309	419.2
17.5	17.5	21.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.1	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	26.7	30.1	30.5	41.4
684	1832	457	253	253	253	253	253	253	253	253	262	503	503	503	503	503	503	503	503	503	361	665	545	471
13	12	4	0	4	4	4	4	4	4.	4.	12	12	σ	4	.4	4	4	4	4.	4	æ	13	ω	N
ACN37539	ADI26112	AAK53923	ABS23605	ABS49761	AAK24064	AAK50129	ABA40118	AAI56067	ABA75494	AAI27213	ACH84968	ACH71268	ABS11189	ABS36871	AAK11415	AAK37201	ABA30262	AAI43027	ABA63001	AAI18034	ABX38686	ADQ54544	AAC78275	AAV86051
	Adi26112 Human cDN	Aak53923 Murine tr	Abs23605 Human gen	Abs49761 Human liv	Aak24064 Human bra	Aak50129 Human bon	Aba40118 Probe #18	Aai56067 Probe #24	Aba75494 Human foe	Aai27213 Probe #17	Ach84968 Human gen	Ach71268 Human gen	Abs11189 Human gen	Abs36871 Human liv	Aak11415 Human bra	Aak37201 Human bon	Aba30262 Probe #87	Aai43027 Probe #11	Aba63001 Human foe	Aai18034 Probe #79	Abx38686 Bovine ES	Adq54544 Novel can	Aac78275 Human can	Aav86051 EST clone

ALIGNMENTS

.,

RESULT 1 ADA53506

ADA53506;

ADA53506 standard; cDNA; 1988

₽P

```
New polynucleotides encoding full-length polypeptides, e.g. secretory and/or membrane proteins, useful for developing medicines for diseases which the gene is involved, or as target molecules for gene therapy.
                                                                                                                                               Isogai T, Sugiyama T,
Yamamoto J, Isono Y,
Seki N, Yoshikawa T,
                                                                                                                                                                                                                                                                                                                                                                       Cytostatic; Anti-inflammatory; Osteopathic; Neuroprotective; Nootropic; Gene Therapy; human; secretory protein; membrane proteins; cancer; inflammatory disease; osteoporosis; neurological disease; gene; ss.
                                                                                                              WPI; 2003-395539/38.
P-PSDB; ADA55145.
                                                                                                                                                                                                                                     14-SEP-2001; 2001JP-00328381.
24-JAN-2002; 2002US-0350435P.
                                                                                                                                                                                                                                                                                                  19-MAR-2003.
                                                                                                                                                                                                                                                                                                                         EP1293569-A2
                                                                                                                                                                                                                                                                                                                                                                                                                         Human coding sequence, SEQ ID 1074.
                                                                                                                                                                                                                                                                        21-MAR-2002; 2002EP-00006586
                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-NOV-2003
                                                                                                                                                                                                 (HELI-) HELIX RES INST.
(REAS-) RES ASSOC BIOTECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                              Otsuki T, Wakamatsu A, Sato H,
Hio Y, Otsuka K, Nagai K, Irie
Otsuka M, Nagahari K, Masuho Y;
                                                                                                                                                             ₽,
                                                                                                                                                             Ishii S;
R, Tamechika
                                                                                                                                                             Ħ
```

The present invention relates to novel human secretory or membrane proteins (ADA54072-ADA55710) and their coding sequences (ADA52433-

Claim 1; SEQ ID

NO 1074; 205pp; English.

'n

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ព្រព្ពង្គង្គ
                                                        밁
                                                                                 S
                                                                                                                                       S
                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                       S
                                                                                                             밁
                                                                                                                                                                                             S
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 1012;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADA54071). The coding sequences are useful in the gene therapy diseases caused by abnormalities of the proteins, e.g. cancer, inflammatory diseases, osteoporosis or neurological disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1160
1700
                                                        1640
                                                                                                              1580
                                                                                                                                                                      1520
                                                                                                                                                                                                                            1460
                                                                                                                                                                                                                                                                                    1400
                                                                                                                                                                                                                                                                                                                                          1340
                                                                                                                                                                                                                                                                                                                                                                                                  1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1040
                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    960
                                                                                  841
                                                                                                                                         781
                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            800
                         901
                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                               GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                        GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                             GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCCCGTGAGGGCAGAGGCATGCCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAAGGCGATGCCAAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                            GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                              GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGAGACAGAGGTGGCTT
                                                                                                                                                                                                                             GTGCAACCAGTGTAAGGCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC 1519
                                                                                                                                                                                                                                                                                     TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                       TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                            AAGAGGACCCCGGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                     AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                              TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP; 519 A; 504 C; 584 G; 381 T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1012; DB 10;
Pred. No. 2.9e-233;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 얁
                                                                                                                                                                                                                                                                                                                                          1399
                                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                  1339
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . 1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1039
                                                                                                                                                                                                                                                                                     1459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            859
1759
                            960
                                                        1699
                                                                                                              1639
                                                                                                                                          840
                                                                                                                                                                      1579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6
```

吊 S 밁 Ś

1145

CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA

120 1146 60 0

61

1205

AGGACGCGGTGGAATGGGCTGGAGGGCGAGGTGGCTTCAATAAGCCTGGTGGACC

AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACC

Matches 1012; Query Match Best Local (

Similarity

100.0%; Score 1012; DB 6; 100.0%; Pred. No. 3e-233;

Conservative

<u>.</u>

Mismatches

2176 BP; 413

Α,

617 C; 563

Ģ

;; 0

ď

0

Other;

Length 2176; Indels

0

Gaps

```
RESULT 2
AAS62262;
ID AAS62262;
XX IA-FEB-200
XX IMMUNDS BEQUE
XX IMMUND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                               The present invention relates to the isolation of novel cDNA sequences convict encode human secreted proteins. The cDNA sequences have been converted from a variety of human tissues. The invention also provides a converted for producing proteins from these polymuclectide sequences. The converted for producing proteins from these polymuclectide sequences. The converted for identifying compounds that modulate their converted for identifying compounds that modulate expression of the polymuclectide sequences converted from the secreted proteins. The sequences of the invention are useful converted for treating diseases such as hyperproliferative disorders (e.g. cancer), converted from the converted for the invention are disorders (e.g. severe combined immunodeficiency (SCID)), autoimmune disorders (e.g. severe combined immunodeficiency (e.g. thrombocytopaenia), inflammatory disorders (e.g. arthritis) and confectious disorders (e.g. heparitis). The polymuclectide sequences of the invention are also useful in gene therapy. AAS62214-AAS62838 crepresent the cDNA sequences of the invention that encode for novel human converted for the invention and the convention that encode for novel human converted for the invention are also seful in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human secreted protein; hyperproliferative disorder; autoimmune disorder; immune deficiency disorder; blood disorder; inflammatory disorder; infectious disorder; gene therapy; antimicrobial; hepatotropic; immunosuppressive; antirheumatic; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New polynucleotides encoding secreted asthma, HIV and Crohn's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-APR-2000; 2000US-0195604P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-MAR-2001; 2001WO-US010485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 100; 391pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-010900/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200177291-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cDNA sequence #49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENETICS INST INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Clark HF,
K, Graham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGAATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Graham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              encoding novel human secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fechtel K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Agostino MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Howes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          treating e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Resnick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1012
```

```
RESULT 3
ADQ86032
ID ADQ8
XX
AC ADQ8
XX
AC ADQ8
XX
AC Huma
DE Huma
XX
XX
huma
                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     १
                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    श
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
 human; tumour-associated antigenic target; TAT; cytostatic;
                               Human tumour-associated antigenic target (TAT) cDNA sequence #2904
                                                                                                                             ADQ86032 standard; cDNA; 2372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1025
                                                                                                                                                                                                                                                                     305
                                                                                                                                                                                                                                                                                                                                   365
                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                               425
                                                                                                                                                                                                                                                                                                                                                                                                                                                           485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                 TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                             ccgregregcegegearegaccgaegregcrrregregaegaagaagacgaegregcccreg
                                                                                                                                                                                                                                                                                                                                                                                                               GGATCGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCCCGTGAGGGCAGAGGCATGCCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATCTACCTGGACAAGGAAACACGGAAAGCCCAAAAGGCGATGCCAACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                    GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                               CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCCCGTGAGGGCAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATCTACCTGGACAAGGAAACAGGAAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                               (first entry)
gene therapy;
                                                                                                                                                                                                                                                                                                                                 306
                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                             366
                                                                                                                                                                                                                                                                                                                                                                                                                                                           426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          786
```

```
Ę
                                                                                                                                                                                                New nucleic acid molecule and encoded polypeptide, for diagnosing, preventing or treating cell proliferative disorders such as cancer
                                                                                                                                                                                                                               (GETH ) GENENTECH (WUTD/) WU T D. (ZHOU/) ZHOU Y.
                                                                                                                                                                                                                                                                                               cancer; cell proliferative disorder; gene;
                                                                                                                                                                                       Claim 1; SEQ ID NO 2904; 5504pp; English.
                                                                                                                                                                                                                                                 18-OCT-2002; 2002US-0418988P
                                                                                                                                                                                                                                                                             WO2004060270-A2
                                                                                                                                                                                                                                                          15-OCT-2003; 2003WO-US029126
                                                                                                                                                                                                                       Zhou Y;
```

CC target (TAT) mucleic acid comprising: (a) any of 4622 nucleotide
CC sequences (see SEQ ID NO:1 to 4622); (b) the full-length coding region of
CC (a); (c) the complement of (a) or (b); (d) a sequence that has 80%
CC sequence identity to (a)-(c); or (e) a sequence that hybridises to (a)CC (c). Also described: (1) an expression vector comprising the above
CC nucleate acid; (2) a host cell comprising the above expression vector; (3)
CC a process for producing a polypeptide; (4) an isolated polypeptide
CC comprising: (a) an amino acid sequence encoded by any of the above
CC nucleatide sequences; (b) an amino acid sequence encoded by the fullCC clerith coding region of the above encleated sequences; or (c) a sequence
CC chaving at least 80% identical to (a) or (b); (5) a chimeric polypeptide;
CC comprising the above polypeptide fused to a heterologous polypeptide;
CC comprising the antibody that binds to the above polypeptide; (7) a process
CC for producing the antibody; (8) an isolated oligopeptide that binds to
the above polypeptide; (9) a tumour-associated antigenic target (7AT)
CC binding organic molecule that binds to the above polypeptide; (10) a
CC composition of matter comprising the above (c) comprising a container
CC composition of matter contained within the container; (12) methods of
CC the composition of matter contained within the container; (12) methods of
CC the growth of the cell is at least in part dependent upon a growth
CC the growth of the above protein, (13) a method of determining the
CC potential onlecule to a cell that expresses the above protein, where
CC described above; (15) methods of diagnosing the protein of
CC disorder associated with increased expression or activity of the above
CC disorder associated with increased expression or activity of the above
CC disorder associated with increased expression or activity of the above
CC protein; and (17) a method of binding an antibody, oligopeptide or
CC protein; and composition and methods and contribed above
CC protein and contributes The present invention describes an isolated tumour-associated antigenic

Sequence 2372 BP; 628 A; 589 C; 668 G; 487 T; 0 U; 0 Other;

```
8
밁
                                       Matches 1012;
                                                  Similarity
           AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                       Conservative
                                                100.0%;
                                                 Score 1012;
Pred. No. 3.
                                       Mismatches
                                                3.1e-233;
                                                          DB 13;
                                      <u>,</u>
                                      Gaps
                                      0
```

```
RESULT 4
ADS16277
ID ADS1
XX
AC ADS1
XX
AC ADS1
XX
AC 18-N
                                                                                                                             뭐
                                                                                                                                                     á
                                                                                                                                                                                    밁
                                                                                                                                                                                                            S
                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          닭
                             ADS16277;
                                                        ADS16277
                                                                                                                             1960
                                                                                                                                                                                                                                                                                                                                                                                                                  1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1060
                                                                                                                                                                                    1900
                                                                                                                                                                                                                                            1840
                                                                                                                                                                                                                                                                                                   1780
                                                                                                                                                                                                                                                                                                                                                          1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1420
                                                                                                                                                         961
                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGAGACTGGCAGTGTCCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                        TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                      GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                            CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                            CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                   GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                            GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                      GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCTGGGGGACCCATGGGTCGCATGGAGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCCCGTGAGGGCAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCAAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                             TGGAMAMATGGATAMAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 2011
                                                                                                                                                                                                                                                                                                                                                                                                                  GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                        CDNA;
                                                        2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                           1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1119
                                                                                                                                                                                                                                           1899
                                                                                                                                                                                                                                                                                                   1839
                                                                                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                  1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                     1959
                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                               840
```

18-NOV-2004

(first entry)

S

181

CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA

```
밁
                            Ś
                                                                    맑
                                                                                              ş
                                                                                                                                      片
                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                     This invention relates to a novel modulators that alter the interaction CC between the Ewing sarcoma protein (EWS) and its nuclear receptor, as well cas the screening method thereof. Specifically, it refers to determining CC and identifying a hormonal effect brought about by test compounds that modulate either the binding of EWS to the nuclear receptor or the ligand-induced activity of this receptor. The present invention describes the culcar receptors as including oestrogen, progesterone, thyroid hormone, CC vitamin D, and retinoic acid receptors, most preferably they are androgen receptors. Accordingly, these modulators may be used in the development CC receptors. Accordingly, these modulators may be used to treat diseases associated with receptor dysfunction such as prostatic cancer, alopecia, ene, hypogonadism and androgen-resistance syndrome e.g. testicular feminisation. This method provides reliable, sensitive, csimple, inexpensive and rapid assessment of the hormonal effects of these test compounds. This polynucleotide sequence is the cDNA encoding the human Ewing sarcoma protein of the invention.
                                                                                                                                                                                                        Query Match
Best Local Sim
Matches 1012;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Determining the hormonal effects of substances, used to identify pharmaceuticals, e.g. for treatment of androgen receptor dysfunction, from modulating interaction between nuclear receptors and Ewing sarco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-MAR-2003; 2003DE-01009280
25-APR-2003; 2003US-0465692P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 7; SEQ ID NO 1; 30pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2004-627861/61.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Obendorf M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-FEB-2004; 2004EP-00003422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human; ss; gene; Ewing sarcoma; EWS; prostatic hypogonadism; androgen-resistance syndrome; tes
                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EP1455190-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SCHD ) SCHERING AG
                                                                    1060
                                                                                                                                        1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cDNA encoding the Ewing sarcoma
                                                                                                      61
                                                                                                                                                        1 AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCCTGGTGGACC
                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADS16278
                       CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACCTCTAGATGATCTGGCAGA 180
                                                                    CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                    CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                      AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
 CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                            2390 BP;
                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wolf S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag= a
/product=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                            646 A; 589 C; 668 G; 487 T; 0 U; 0 Other;
                                                                                                                                                                                                        100.0%; Score 1012; DB 13; 100.0%; Pred. No. 3.1e-233; vative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Ewing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Barcoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein SeqID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cancer;
                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  alopecia; acr
feminisation.
                                                                                                                                                                                                                                              2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ewing sarcoma
                                                                                                                                                                                                            0
                                                                                                                                                                                                            Gaps
                                                                                                      120
 1179
                                                                     1119
                                                                                                                                        1059
                                                                                                                                                                          60
                                                                                                                                                                                                            0
```

```
chromosomal translocation; chimeric; malignant melanoma; hum-fli-1; primitive peripheral neuroectodermal human chromosome 22; ss.
                    Homo sapiens
                                                                                                     Human
                                                                                                                           25-MAR-2003
26-MAY-1994
                                                                                                                                                                                     AAQ50643 standard;
                                                                                                                                                                                                                                                 1960
                                                                                                                                                                                                                                                                                               1900
                                                                                                                                                                                                                                                                                                                                              1840
                                                                                                                                                                                                                                                                                                                                                                                             1780
                                                                                                                                                                                                                                                                                                                                                                                                                                             1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1180
                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                     EWB
                                                                                                                                                                                                                                                                   TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGGGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                            GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                           CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                         GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGTGGTGATCGTGGCAGAGGTGGCCCTTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCACCCACGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCACCCACTGCCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATCTACCTGGACAAGGAAACAGGAAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAÁGA 300
                                                                                                                                                                                                                                                                                                                                            CCGTGGTGGCCGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                            GGATCGTGGTGGCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA 1239
                                                                                                  gene clone BF1AC5
                                                                                                                          (revised)
(first entry)
                                                                                                                                                                                     CDNA;
                                                                                                                                                                                      2371
                                                                                                  from foetal brain
                                                                                                                                                                                     ВP
                                                     tumour;
                                                                         chimaeric; Ewing sarcoma;
                                                     human
                                                                                                  cDNA library
                                                     chromosome
                                                                                                                                                                                                                                                2011
                                                                           Ew8
. .
                                                                         gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1299
                                                                                                                                                                                                                                                                                                                                            1899
                                                                                                                                                                                                                                                                                                                                                                                             1839
                                                                                                                                                                                                                                                                                                                                                                                                                                             1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                      960
                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                   밁
                                                                                                           δ
                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                       S
                δ
                                        문
                                                          5
                                                                                                                                                      Ś
                                                                                                                                                                                  밁
                                                                                                                                                                                                        S
                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                뭐
                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Simi
Matches 1011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The probe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New nucleic acid of EWS gene and its hybrid(s) - contg. gene sequence involved in chromosomal trans-location, also derived mRNA, probes, fusion proteins etc., for diagnosis and treatment of Ewing sarcoma and melanoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Aurias
Thomas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1993-386580/48
P-PSDB; AAR44555.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS
                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Fig 6; 123pp; French
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-MAY-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9323549-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (CNRS ) CNRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ٠,,
                                                                                                                                                                                                                                                                                                                                                                                                                                                    probes 22RR3 and 22RR12 were used to screen a human foetal brain of rary (Stratagene cat.# 936206). The clone BFIAC5 was identified and uenced. It represents the entire coding region and 3'-UTR of the Ewee. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                       1281
                                                                                                                                                                                     1161
                                                                                                                                                                                                                                  1101
                                                                                                                                     1221
                 421
                                                                                                              301
                                                                                                                                                           241
                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                 981
                                                                                                                                                                                                                                                                                                        13
                                                                                                                                                                                                                                                                                                                                                        μ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ۾ ۾
                                                                                                                                                                                                                                                                                                                                                                                            Similarity
   ACCCCGTGAGGGCAGAGGCATCCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                     ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                     CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                    CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                    CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                    CATCTACCTGGACAAGGAAACAGGAAAAGCCCCAAAGGCCGACAGTGTCCTATGAAGA
                                                                                                                                                                                                    CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGGCAACCCATGATCCA
                                                                                                                                                                                                                                 CATGGATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                               CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                            AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                              2371 BP; 639 A; 587 C; 659 G; 486
                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /product= "EWS_protein"
/trans1_except= pos:1729. .
2143. .2148
/*tag= b
2331. .2336
/*tag= c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92FR-00006123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93WO-FR000494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                o,
                                                                                                                                                                                                                                                                                                                                                                                           99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RECH SCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Desmaze
                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                               Pred. No. 7.50
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                          Score 1010.4; DB 2
Pred. No. 7.5e-233;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Melot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     H
                                                                                                                                                                                                                                                                                                                                                                                                                              T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .1731;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peter
                                                                                                                                                                                                                                                                                                                                                                                                      2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   aa:Val
                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Σ,
                                                                                                                                                                                                                                                                                                                                                                                                                               Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Plougastel
                                                                                                                                                                                                                                                                                                                                                                                                       2371;
                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDNA
                                                                                      1340
                                                                                                                                                           300
                                                                                                                                                                                                                                  1160
                 480
                                         1400
                                                                                                                                    1280
                                                                                                                                                                                  1220
                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                  1100
                                                                                                                                                                                                                                                                                                                                 1040
                                                                                                                                                                                                                                                                                                                                                         60
                                                              420
                                                                                                              360
                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                         120
```

0

문

S 밁 र् 뮍 S 밁 S 밁 S 밁 S 밁 Ş 밁 ঠ 밁 ş 밁 Ş 밁 र् 밁 S 문

밁 S

÷

biodiversity

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          片
New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess
                                                                                                                                                 31-MAR-2000;
23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                     13-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                              AAS70647
                                                                                                                                                                                                                   11-OCT-2001
                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                 Human; chromosome mapping; gene mapping; gene therapy; forensic; food supplement; medical imaging; diagnostic; genetic disorder; ss
                                                                                                                                                                                                                                                                                                                                       DNA encoding novel human diagnostic protein #6451
                                                                                                                                                                                                                                                                                                                                                                                                                        AAS70647 standard;
                                                                                                Drmanac
                                                                                                                        (HYSE-) HYSEQ INC.
                                                                                                                                                                                        30-MAR-2001; 2001WO-US008631
                                                                                                                                                                                                                                               WO200175067-A2
                                                      P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1401 ACCCCGTGAGGGCAGAGGCATGCCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                    2001-639362/73.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                      ABG06460.
                                                                                             RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCTGGGGGACCCATGGGTCGCATGGGAGGACGCCGTGGAGGAGGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAGGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGTGGTGGCCGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1992
                                                                                             Liu C,
                                                                                                                                                   2000US-00649167
                                                                                                                                                               2000US-00540217.
                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                        CDNA; 2388
                                                                                             Tang
                                                                                             TY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . 1640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
```

```
The invention relates to isolated polynucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain (CC and in recombinant production of (II). The polynucleotides are also used in diagnostics as expressed sequence tags for identifying expressed cc in diagnostics as expressed sequence tags for identifying expressed cc activity of (II) or to treat disease states involving (II). (II) is useful in gene therapy techniques to restore normal cc useful for generating antibodies against it, detecting or quantitating a polypeptide in tissue, as molecular weight markers and as a food gupplement. (II) and its binding partners are useful in medical imaging of sites expressing (II). (I) and (II) are useful for treating disorders involving aberrant protein expression or biological activity. The cc involving aberrant protein expression or biological activity. The cc diagnostics, forensics, gene mapping, identification of mutations cc responsible for genetic disorders or other traits to assess biodiversity and to produce other types of data and products dependent on DNA and camino acid sequences. AAS64197-AAS94564 represent novel human diagnostic coding sequences of the invention. Note: The sequence data for this patent did not appear in the printed specification, but was obtained in electronic format directly from WIPO at
Claim 1; SEQ ID NO 6451; 103pp; English.
                                                       ftp.wipo.int/pub/published_pct_sequences
```

Query Match Best Local Similarity Matches 1011; Conserv Sequence 2388 BP; 628 A; 599 C; 668 G; 493 T; 0 U; 0 Other; 1017 AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCCTGGTGGACC Conservative 99.8%; Score 1010.4; Pred. No. 7.5e. 0; Mismatches 0 4; DB 5; .5e-233; Indels Length 2388 0 Gaps 1076 60 0

```
밁
                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
S
                              밁
                                                           á
                                                                                           밁
                                                                                                                   S
                                                                                                                                                        밁
                                                                                                                                                                                    S
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1137
                                                                                            1497
                                                                                                                                                         1437
                                                                                                                                                                                                                    1377
                                                                                                                                                                                                                                                                                 1317
                                                                                                                                                                                                                                                                                                                                            1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                      181
   601
                                                                                                                           481
                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                            ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCCAGGAGG 480
                                                                                                                                                                                                                                                                                                    CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                           CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAACAGTGCAATTTATGTACAAGGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATGGATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGA
 TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA 660
                                AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                    AAGAGGACCCCGGGGTTCCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                            ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                      ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                ACTTANAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                 CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                            CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1136
                                                                                                                                                         1496
                                                                                                                                                                                                                      1436
                                                                                                                                                                                                                                                                                   1376
                                                                                                                                                                                                                                                                                                                                                1316
                                                                                                                                                                                                                                                                                                                                                                                                           1256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                           540
                                 1616
                                                                                                1556
                                                                600
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                              Human; es; granulocytic cell; DNA chip; bacterial infection; viral infection; parasitic infection; protozoal infection; fungal infection; sterile inflammatory disease; psoriasis; rheumatoid arthritis; glomerulonephritis; asthma; thrombosis; cardiac reperfusion injury; renal reperfusion injury; ARDS; adult respiratory distress syndrome; inflammatory bowel disease; Crohn's disease; ulcerative colitis; periodontal disease; granulocyte activation; chronic inflammation; allergy.
                                                                                                 Detecting granulocyte activation by detecting genes associated with granulocyte activation, markers that is useful for monitoring disease
The invention relates to detecting (M1) granulocyte (GC) activation (GCA), by detecting the level of expression of gene(s) (Gs) identification and comparing the expression level to an expression level in an unactivated GC, where
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human cDNA
                                                                                                                                                                                    Beazer-Barclay Y,
                                                                                                                                                                                                                                           03-OCT-2000;
                                                                                                                                                                                                                                                                     03-OCT-2001; 2001WO-US030821
                                                                                                                                                                                                                                                                                                  11-APR-2002
                                                                                                                                                                                                                                                                                                                            WO200228999-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABK84628
                                                                                                                                                                                                               (GENE-) GENE LOGIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1617
                                                                                                                                                           2002-435328/46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                        SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               standard; cDNA; 2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAGGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGATCGTGGTGCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           differentially expressed in granulocytic cells #1199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                        Ð
                                                                                                                                                                                                                                           2000US-0237189P
                                                                        ğ
                                                                                                                                                                                    Weissman
                                                                     114pp;
                                                                                                                                                                                    MS,
                                                                       English
                                                                                                                                                                                  Yamaga
                                                                                                                                                                              ,
S
                                                                                                                                                                                    Vockley
                                                                                                              which serves as diagnostic
                                                                                                  states
                                                                                                 and
                                                                                                 drug toxicity.
                             identified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                             Ą
```

```
CC tissue, an allergic response in a subject, exposure of a subject to a gene (s) parhogen or sterile inflammatory disease, by detecting the level of CC expression in a sample of the tissue of gene (s) from Gs, where the level of CC expression of the gene is indicative of inflammation; (4) treating CC (M5) an inflammation (especially chronic) or in a tissue, an allergic response in a subject, exposure of a subject to a pathogen or sterile CC response in a subject, exposure of a subject to a pathogen or sterile CC inflammatory disease, by contacting a tissue having inflammation with an CC is useful for detecting GCA; M2 is useful for modulating GA; M3 is useful for screening an agent capable of modulating GCA preferably in an CC inflammation in a tissue; M4 is useful for detecting GA; M3 is useful for detecting an inflammation (especially chronic) in a tissue, an allergic response in a subject, CC exposure of a subject to a pathogen or sterile inflammatory disease (e.g. Cc cardiac reperfusion injury, renal reperfusion injury, asthma, thrombosis, CC cardiac reperfusion injury, renal reperfusion injury, ARDS, adult C respiratory distress syndrome, inflammatory bowel disease, Crohn's C cardiac reperfusion and M5 is useful for treating one of the above conditions. The present sequence represents a gene differentially CC expressed in granulocytes. Note: The sequence data for this patent did cont form part of the printed specification, but was obtained in CC electronic format directly from WIPO at the properture of the present sequence of the spatent did for the properture of 
   Matches 1011;
                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   differential expression of Gs is indicative of GCA. Also included are modulating (M2) GA by contacting GC with an agent that alters the expression of at least one gene in Gs; (2) screening (M3) for an agent capable of modulating GCA or an inflammation (especially chronic) in a tissue, an allergic response in a subject, exposure of a subject to a pathogen or sterile inflammatory disease using the gene expression profile; (3) detecting (M4) an inflammation (especially chronic) in a
                                                                                                                               Sequence 2390 BP; 645 A; 589 C; 668 G; 488
                                                                                                                                                                                             ftp.wipo.int/pub/published_pct_sequences
                                         Local Similarity
      Conservative
                               99.8%;
Score 1010.4;
Pred. No. 7.5e.
0; Mismatches
   0;
                               .5e-233;
                                                                                                                                   T; 0 U; 0 Other;
                                                                     DB
                                                                 6;
   Indels
                                                                 Length
0
0
```

片 δ 밁 밁 Ś 8 8 밁 δ S 밁 S δ 문 문 문 밁 S 1360 1300 1240 1060 481 301 241 61 Ц TCCTGGGGGACCCATGGGTCGCATGGGAGGAGGGGAGATAGAGGGGGGCTTCCCTCC ACCCCGTGAGGGCAGAGGCATGCCACCACCACCCCGTGGAGGTCCAGGAGGCCCAGGAGG ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA CATCTACCTGGACAAGGAAACAGGAAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATGTTGGCAGA CATGGATGAAGGACCAGATCTTGATCTAGGCCCCACCTGTAGATCCAGATGAAGACTCTGA AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACC AGGACGCGGTGGAATGGGCGAGCGCTGGAGAGCCGAGGTGGCTTCAATAAGCCTGGTGGACC TCCTGGGGGACCCATGGGTCGCATGGGAGGACGAGGAGATAGAGGAGGCTTCCCTCC ACCCCGTGAGGGCAGAGGCATGCCACCACCCCGTGGAGGTCCAGGAGGCCCAGGAGG CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 1359 CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA CATGGATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGA 1539 1479 240 180 120 1059 540 1419 1299 1179 60 480 300 1239

```
ARRESULT 2

ABKG6422

ID ABKG

XX ABKG

XX ABKG

XX Huma

XX Huma

XX Huma

XX WO20

XX WO20

XX WO20

XX WO20

XX WO20

XX WO50

PD 14-F

PP 07-J

PR 05-C

XX O7-J

PR (GEN

XX (GEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
The invention relates to a method of diagnosing (I progression of benign prostatic hyperplasia (BPH),
                                                                                                                                                      Identifying drugs for and diagnosing benign prostatic hyperplasia, by detecting expression levels of one or more genes in prostate cells from patient that are differentially regulated compared to normal prostate
                                                                                                                                                                                                                                                                                                                                                                                                                                             07-AUG-2000;
05-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human benign prostatic hyperplasia gene #717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABK64822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABK64822
                                                                                                                                                                                                                                                                 WPI; 2002-257476/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200212440-A2
                                                                           Disclosure; Page 399-400; 444pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-AUG-2001; 2001WO-US024708
                                                                                                                                                                                                                                                                                                                                                                                             (GENE-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               benign
                                                                                                                                                                                                                                                                                                                                                                  GENE LOGIC INC.
JAPAN TOBACCO INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGATCGTGGTGGTCCCGGTGGAAITGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGGCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGATCGTGGTGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGCAACCAGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                               Kulkarni
                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0223323P
2001US-00873319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  prostatic hyperplasia; BPH; prostate cancer; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA;
                                                                                                                                                                                                                                                                                                               ָש,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2390
                                                                                                                                                                                                                                                                                                               Getzenberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽₽
                                                                                                                                                                                                                                                                                                                  RH,
                                                                                                                                                                                                                                                                                                               Waga
                                                                                                                                                                                                                                                                                                               ŗ

 (I) the onset on
the onset on
the onset on

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
```

```
CC or identifying an agent that modulates the onset or progression of BPH.

CC The method is based on changes in gene expression in BPH tissue isolated

CC from patients exhibiting different clinical states of prostate

CC hyperplasia as compared to normal prostate tissue. (I) comprises

CC detecting the expression levels of one or more genes in prostate cells

CC from the subject that are differentially regulated compared to normal

CC prostate cells. (II) comprises preparing a first gene expression profile

CC of BPH cells or BPH-like cell population, exposing the cells to the

CC agent, preparing a second gene expression profile of the agent exposed

CC cells, and comparing the first and second gene expression profile. (I)

CC is useful for diagnosing the onset or progression of BPH. (II) is useful

CC for identifying an agent that modulates the onset or progression of BPH.

CC for identifying an agent that modulates the onset or progression

CC given in a tissue or cells, by comparing the expression level of genes

CC expression of gene in the database, and displaying the expression levels

CC expression level in BPH. Agents using (II) are useful for treating BPH or

CC prostate cancer. ABK64106-ABK64860 represent human benign prostatic

CC hyperplasia agene semisores of the invention
                                                    hyperplasia gene sequences of the invention
```

Sequence 2390 BP; 645 A; 589 C; 668 G; 488 T; 0 U; 0 Other;

Best Local Si Matches 1011; Query Match

Similarity

99.8%;

0;

.5e-233; B 6

Indels Length

Gaps

0

2390 ٥,

1000 1180 1120 1480 1420 1360 1300 1240 1060 CATGGATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGA 1600 1540 181 661 541 481 421 361 301 61 GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCC TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACCTTCGCCTGGAGAACAGA AAGAGGACCCCGGGGTTCCCCGAGGGAACCCCTCTGGAGGAGGAACCGTCCAGCACCGAGC ACCCCGTGAGGGCAGGGCATGCCACCACCACTCGGAGGTCCAGGAGGCCCAGGAGG ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCCTCCAATGAACAGTATGCGGGGTGGTCTGCC CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA CTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA 240 CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCCTGGTGGACC TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC **ACCCCGTGAGGGCAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG** CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA Conservative Score 1010.4; Pred. No. 7.5e 0; Mismatches 420 . 360 300 120 1059 1479 480 1419 1359 1299 1179 1119 60 660 540 1239 180 1599 1539 720 1659 600

S 맑 S 5 밁 8 맑 Ş 닭 8

밁

õ (II)

for

S 밁 S 밁 Ş 밁 S 맑 5 밁 S 밁

DB 0 6 Ç,

Indels Length 0 Other;

0

60 0

```
RESULT 9
ABN97274
ID ABN9
XX ABN9
AC ABN9
AC ABN9
XX Gene
XX Hom
XX Hom
XX Hori
XX Diag
PT Cari
PT Cari
PT Cari
PT Levi
XX CC The
CC The
CC The
CC Cyt
CC Giru
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
The invention relates to a novel method for diagnosing and detecting the progression of liver cancer, hepatocellular carcinoma or metastatic liver tumour in a patient, and differentiating metastatic liver cancer from hepatocellular carcinoma in a patient, involving detecting the level of expression of two or more genes represented in ABN93503-ABN97455 in a tissue sample. The method of the invention has hepatotropic, and cyvostatic activity. The method is useful for diagnosing and detecting the progression of liver cancer, hepatocellular carcinoma and metastatic liver carcinoma in a patient. The method is useful for identifying expression profiles which serve as useful diagnostic markers as well as markers that can be used to monitor disease states, disease progression, drug toxicity, drug efficacy and drug metabolism. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                          Diagnosing and detecting the progression of liver cancer, hepatocellular carcinoma or metastatic liver tumor in a patient, involves detecting the level of expression of two or more genes in a liver tissue sample.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gene; liver cancer; ds; hepatocellular carcinoma; hepatotropic; metastatic liver tumour; cytostatic; expression profile; disease state; disease progression; drug toxicity; drug efficacy; drug metabolism.
                                                                                                                                                                                                                                                                                                                                                                                    Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gene #3772 used to diagnose liver cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABN97274;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABN97274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-OCT-2000; 2000US-0237054P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-OCT-2001; 2001WO-US030589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200229103-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2002-426119/45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 3772; 298pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGĀĀĀĀĀTGGATĀĀĀGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGATCGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAGAGGTGGCCTCAT 1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAAGAGGTGGCCTCAT 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC 1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alvares C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peres-Da-Silva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₽P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vockley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ថ្ង
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1839
                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                    S
     S
                                                      문
                                                                                             S
                                                                                                                                                     밁
                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SXS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Sim
Matches 1011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 2390 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ftp.wipo.int/pub/published_pct_sequences
                                                      1900
                                                                                                                                                        1840
                                                                                                                                                                                                                                                                                                                                                       1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1060
       961
                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ь
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
     TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                  CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                               GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                 GGGTGGTGATCGTGGCAGAGGTGGCCCTCGTGGTGGCATGCGGGGAGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGAGACTGGCAGTGTCCCCAATCCGGGTTGTGGAAACCAGAACCTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATCTACCTGGACAAGGAAAACAGGAAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATGGATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                    GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                     CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                       GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGAGGACCCCGGGGTTCCCGAGGGAAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCCTCCAATGAACAGTATGCGGGGTTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 645 A; 589 C; 668 G; 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1010.4;
Pred. No. 7.5e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7.5e-233;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7
```

360

1299

300

1239 240 1179 180 1119 120 1059

420 1359

1779

780

840

1839

1719

1659

660

1599

540

1479 480 1419

1539

600

900

960

1899

밁

1960

```
ACN4093

ACN
                                                      Query Match
Best Local (
                         Best Local Similarity Matches 1011; Conserv
                                                                                                                                                                                                                                                               polypeptides; expression vectors and host cells comprising a TAT nucleic acid; an antibody specific for a TAT polypeptide; a peptide or organic molecule which binds to a TAT polypeptide; fusion proteins comprising a TAT polypeptide; fusion proteins comprising a TAT polypeptide; and methods and compositions for the treatment or diagnosis of cancer in mammals. TAT polypeptides, nucleic acids, antibodies, antagonists, binding molecules and compositions are useful for diagnosing or treating a cell proliferative disorder associated with increased TAT expression, particularly cancers such as breast cancer, colorectal cancer, lung cancer, ovarian cancers of the central nervous system, melanoma and leukaemia. TAT nucleic acids may further be used as hybridisation probes, in chromosome and gene mapping, in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tumour-associated antigenic target; TAT; human; overexpression; citumour; diagnosis; cell proliferative disorder; breast cancer; colorectal cancer; lung cancer; overian cancer; liver cancer; central nervous system cancer; bladder cancer; pancreatic cancer; cervical cancer; melanoma; leukaemia; hybridisation probe; chromosome identification; chromosome mapping; gene mapping;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to human tumour-associated antigenic target (TAT) polypeptides, and their related nucleic acids. The TAT polypeptides are overexpressed in cancer tissues compared to normal tissues, and may thus serve as effective targets for the diagnosis and treatment of cancer in mammals. The invention also relates to nucleic acid and polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New tumor-associated antigenic target polypeptides and nucleic acids, useful in preparing a medicament for treating or detecting a proliferative disorder, e.g. breast, lung, colorectal, ovarian or
                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mammals. The invention also relates to nucleic acid and polypusequences at least 80% identical to the TAT nucleic acids and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; SEQ ID NO 5989; 7273pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            prostate cancer or tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2004-347921/32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wu TD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-OCT-2002; 2002US-0414971P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-SEP-2003; 2003WO-US028547.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-APR-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO2004030615-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tumour-associated antigenic target (TAT) cDNA DNA269830, SEQ ID NO:5989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACN40903;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACN40903
                                                                                                                                                                                                               chromosome identification and represents a TAT nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABM82330.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zhang Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard;
                                                                                                                                                  2390
                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                  BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cytostatic;
                                                                                                                                                  645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Zhou
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDNA;
                            99.8%; Score 1010.4; DB 13; Length 2390;
99.9%; Pred. No. 7.5e-233;
Live 0; Mismatches 1; Indels 0;
                                                                                                                                                  A; 589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ķ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene; ss.
                                                                                                                                                  ũ
                                                                                                                                                                                                               of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP
                                                                                                                                                  668 G;
                                                                                                                                                                                                               gene therapy.
the invention
                                                                                                                                                  488
                                                                                                                                                  T; 0 U;
                                                                                                                                                                                                                                                  The
                                                                                                                                                                                                                                           present
                                                                                                                                                     0 Other;
                                                                                                                                                                                                                                           sequence
                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cancer;
                         0
RESULT 11
ADR07446
ID ADR07
XX
```

ID ADR07446 standard; cDNA; 2026 BP.

```
밁
                           ঠ
                                                                   몽
                                                                                             S
                                                                                                                                밁
                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                          Query Match
Best Local Sim
Matches 1010;
                                                                                                                                                                                                                                                                                 CDNA clones obtained by an oligo-capping method, where none of these clones are identical to any known human mRNAs. The present invention describes an immunoassay to identify agonists and antagonists, as well as antibodies, antisense molecules and siRNAs that can all be used to bind to and modulate expression of the cDNA molecules. As such, these molecules are useful for diagnostic markers or therapeutic targets for the various diseases or morbid states. In particular, they are useful in gene therapy for treating osteoporosis, neurological disease, Alzheimer's disease, Parkinson's disease, dementia, short memory and various cancers, as well as for maintaining equilibrium of sense or motor function, and for treating emotional reaction, fear response and panic. Accordingly, they exhibit osteopathic, neuroprotective, nootropic, antiparkinsonian, cycostatic and tranquiliser activities. This polymucleotide is a full length human cDNA sequence of the invention. MOTE: This sequence is not given in the sequence listing of the specification but can be obtained on CD-ROM from the Buropean Patent Office, Vienna Sub-office.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Parkinson's disease; dementia; short memory; cancer; sense or motor function; emotional reaction; fear response; osteopathic; neuroprotective; nootropic; antiparkinsonian;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-FEB-2003; 2003JP-00102207.
09-MAY-2003; 2003JP-00131452.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             molecules and the encoded proteins thereof. Specifically, it
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-FEB-2004; 2004EP-00003145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tranquiliser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            osteoporosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADR07446;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (REAS-) RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2004-583265/57
)B; ADR09402.
      958
                                  121
                                                                   898
                                                                                                                                838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ss; human; oligo-capping method; diagnostic marker;
porosis; neurological disease; Alzheimer's disease;
                                                                                                 13
                                                                                                                                                               _
                                                                                                                                                                                                            Similarity
                                                                                                                                                AGGACGCGGTGGAATGGGCAGCGCTGGAGAGAGCGAGGTGGCTTCAATAAGCCCTGGTGGACC
                                                                                                                                                                                                                                                          2026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 952;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cDNA, useful
r's diseases,
                                  CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA 180
                                                                                     CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
    CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                   CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Yamamoto
A, Ishii
                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ASSOC BIOTECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          human cDNA useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                        BP; 540 A; 513 C; 590 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               relates to novel,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ωĊ
                                                                                                                                                                                                        99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            for treating osteoporosis, neurological diseases, Parkinson's diseases, dementia and various cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nishikawa
Nagai K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2686pp; English.
                                                                                                                                                                                           0,
                                                                                                                                                                                           Score 1008.8; DB 13;
Pred. No. 1.7e-232;
D; Mismatches 2; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               isolated full length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Irie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        treating neurological disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Isono
e R;
                                                                                                                                                                                                                                                        383 T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ķ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sugiyama
                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                          0 Other;
                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Η,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              various cancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cytostatic;
                                                                                                                                                                                           <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                refers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Otsuki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seq
                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       H
1017
                                                                                                                                897
                                                                                               120
                                                                                                                                                              60
                                                                                                                                                                                           0
```

```
δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , 망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
밁
                      S
                                                   밁
                                                                       ঠ
                                                                                                         밁
                                                                                                                                  Ś
                                                                                                                                                               밁
                                                                                                                                                                                    Ś
                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                    1738
                                                                                                                                                                                                                                                                         1498
                                                                                                                                                                                                                                                                                                                               1438
                                                                                                                                                                                                                                                                                                                                                                                    1378
                                                                                                                                                                                                                                                                                                                                                                                                                                        1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1018
                                                                                                          1678
                                                                                                                                                               1618
                                                                              901
                                                                                                                                     841
                                                                                                                                                                                          781
                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                           GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAAGAAGACGTGGAGGACC
                                                                                                                                                                              GGATCGTGGTGCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT 840
                                                                                                                                                                                                                                    GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                  CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                           TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                     CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                               GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                           GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                               TGGAGACCTGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                               TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                             AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC, 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATCTACCTGGACAAGGAAACAGGAAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                     GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAGACTGGGCAACCCATGATCCA
1849
                           1012
                                                                                                                                                                                                                                                                                                                               1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1137
                                                                                                                                                               1677
                                                                                                                                                                                                                     1617
                                                                                                                                                                                                                                                                           1557
                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                    1437
                                                                                                                                                                                                                                                                                                                                                                                                                                        1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1077
                                                                              960
                                                                                                                                    900
                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
```

```
18-NOV-2004
                               ADP56333
                                     ADP56333
                                     standard; cDNA;
                         (first entry)
                                     1807
                                     ВP
```

Human

PRO

cDNA sequence SEQ ID NO:2309.

human; PRO; immune related disease; inflammatory immune response; immune response stimulation; antiallergic; antianaemic; antiarthri antiaethmatic; antidiabetic; antidiabetic; antidiabetic; antidiabetic; antidiabetic; antidiabetic; antityporiatic; antirheumatic; antityroid; CNS; dermatological; gastrointestinal; response; antiarthritic; muscular;

```
The present invention describes an isolated PRO nucleic acid (1). Also Cd described: (1) a vector comprising (1), (2) a host cell comprising the vector of (1); (3) a process for producing a PRO polypeptides; (4) an Cd isolated PRO polypeptide; (5) a chimeric molecule comprising the Cd isolated PRO polypeptide; (5) a chimeric molecule comprising the Cd polypeptide of (4) fused to a heterologous amino acid sequence; (6) an antibody which specifically binds to a polypeptide of (4); (7) a Cd composition of matter comprising a polypeptide of (4), an agonist or Cd comprising a container, a label on the container and a composition of Cd matter of (7); (9) a method of treating an immune related disease in a mammal; (10) a method for determining the presence of a PRO polypeptide Cd diagnosing an immune related disease or an inflammatory immune response in minics the activity of or expression of a gene encoding a PRO polypeptide; (11) a method of finaliating the immune response in a minics the activity of or expression of a gene encoding a PRO polypeptide; and (13) a method of stimulating the immune response in a mammal. The PRO sequences have antiallergic, antianaemic, antiarthritic, antiasthmatic, antithyroid, CNS, dermatcological, gastrointestinal, captively encoded of stimulating the immune response in a mammal. The presentation of the encoded polypeptides, composition, kits and methods are useful in diagnosing and treating an immune related disease and in custoulate secuence from the present sequence represents a human constitution.
                                                        밁
                                                                                     ঠ
                                                                                                                      밁
문
                      ð
                                                                                                                                                5
                                                                                                                                                                                 Query Match
Best Local S
Matches 955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-OCT-2003; 2003WO-US034381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO2004039956-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nephrotropic; neuroprotective; osteopathic; respiratory; vasotropic; virucide; gene therapy; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2004-376182/35.
P-PSDB; ADP56334.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-OCT-2002;
                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   stimulating an immune response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRO polynucleotides and polypeptides, useful in useful in diagnosing treating an immune related disease, e.g. systemic lupus thematosus, rheumatoid arthritis, diabetes mellitus or asthma and in
                                                                                                                                                                                                                                                                      nucleotide sequence
                                                            909
                                                                                        117
                                                                                                                      849
969
                            177
                                                                                                                                                    57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S,
                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ
                                                                                   CTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGG
                                                                                                                                              GACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACT 116
                                                                                                                                                                                                                                             1807
                    CAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGGCAACCCATGA
                                                            CTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGG
                                                                                                                      GACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACT
 CAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Clark
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2002US-0422472P
                                                                                                                                                                                                                                           BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NO 2309; 3009pp;
                                                                                                                                                                                                                                           476 A; 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ŧ,
                                                                                                                                                                                            94.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gurney
                                                                                                                                                                                                                                                                         from the
                                                                                                                                                                                  0
                                                                                                                                                                                 Score 954.4;
Pred. No. 2e-2
0; Mismatches
                                                                                                                                                                                                                                           C; 523 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ŗ,
                                                                                                                                                                                                                                                                         present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Schoenfeld
                                                                                                                                                                                                                                           311
                                                                                                                                                                                               2e-219;
                                                                                                                                                                                                                                           T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ç
                                                                                                                                                                                  ۲,
                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Williams
                                                                                                                                                                                                                                           0 Other;
                                                                                                                                                                                                            Length 1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ΡM.
                                                                                                                                                                                 0
 1028
                            236
                                                            968
                                                                                                                      806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
```

```
닭
                    S
                                                                 밁
                                                                                                 S
                                                                                                                                         밁
                                                                                                                                                                   S
                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1029
                                                                     1689
                                                                                                                                                                                                                1569
                                                                                                                                                                                                                                                                                        1509
                                                                                                                                                                                                                                                                                                                                                                                                                                   1389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1329
                                                                                                                                                                                                                                                                                                                                                               1449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               357
                               957
                                                                                                       897
                                                                                                                                                                            837
                                                                                                                                                                                                                                                    777
                                                                                                                                                                                                                                                                                                                        717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        237
                    GACCTGGAAAAATGGATAAAGGCGAGCGCACCGTCAGGAGCGCAGAGAGATCGGCCCTAC
                                                                                                                                                                     GCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGAAGACGAGGTGGCC
                                                                                                                                                                                                                                       TCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAAACCAGAACTTCGCCTGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCACATCTACCTGGACAAGGAAACAGGAAAAGCCCAAAAGGCGATGCCACAGTGTCCTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCACATCTACCTGGACAAGGAAAACAGGAAAAGCCCAAAGGCGATGCCACAGTGTCCTATG
                                                                     CTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAG
                                                                                             CTGGGGGGCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGAGGACGTGGAG
                                                                                                                                                                                                                                                                                                                           CCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                               CAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCACCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGA
GACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                  GGTGGAGACAGAGGTG
1804
                                   1012
                                                                                                                                            1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1208
                                                                                                         956
                                                                                                                                                                              896
                                                                                                                                                                                                                  1628
                                                                                                                                                                                                                                                                                         1568
                                                                                                                                                                                                                                                                                                                                                               1508
                                                                                                                                                                                                                                                                                                                                                                                                                                     1448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          296
                                                                                                                                                                                                                                                      836
                                                                                                                                                                                                                                                                                                                           776
                                                                                                                                                                                                                                                                                                                                                                                                 716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   536
```

ACN37537

standard; cDNA; 2177 ВÞ

18-NOV-2004 (first

Tumour-associated antigenic target (TAT) CDNA DNA323971, SEQ ID NO:490.

ACN37537
ID ACN37537
ID ACN37537
AC ACN37
AC ACN37
XX
AC ACN37
XX
DT 18-NC
XX
Tumou
XX
Tumou
XX
Tumou
XX
Conti
XW
Conti
XW
Cervi
XW
Cervi
XW
Cervi
XW
Cervi
XW
Cervi
XW
Gene
XX
Homo Tumour-associated antigenic target; TAT; human; overexpression; o tumour; diagnosis; cell proliferative disorder; brest cancer; colorectal cancer; lung cancer; ovarian cancer; liver cancer; central nervous system cancer; bladder cancer; pancreatic cancer; cervical cancer; melanoma; leukaemia; hybridisation probe; cervical cancer; melanoma; leukaemia; hybridisation probe; gene chromosome identification; chromosome therapy; cytostatic; mapping; gene mapping

```
δ
                                                                                                                                                                                                                                                                                    ş
                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                          ई
                                                                                                                                                                밁
                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      XEXEXEXEXEXERXEFFEXSXOOOOOOOOOOOO
      밁
                                  S
                                                                                   밁
                                                                                                                      र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to human tumour-associated antigenic target (TAT) CC polypeptides, and their related nucleic acids. The TAT polypeptides are overexpressed in cancer tissues compared to normal tissues, and may thus serve as effective targets for the diagnosis and treatment of cancer in mammals. The invention also relates to nucleic acid and polypeptide sequences at least 80% identical to the TAT nucleic acids and polypeptide cadd; an antibody specific for a TAT polypeptide; apeptide or organic molecule which binds to a TAT polypeptide; fusion proteins comprising a TAT polypeptide; and methods and compositions for the treatment or diagnosis of cancer in mammals. TAT polypeptides, nucleic acids, antibodies, antagonists, binding molecules and compositions are useful for diagnosing or treating a cell proliferative disorder associated with increased TAT expression, particularly cancers such as breast cancer, colorectal cancer, pancreatic cancer, carvical cancer, liver cancer, bladder cancer, pancreatic cancer, carvical cancer, liver cancer, bladder cancer as system, melanoma and leukaemia. TAT nucleic acids may further be used as hybridisation probes, in chromosome and gene mapping, in chromosome identification and in gene therapy. The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New tumor-associated antigenic target polypeptides and nucleic acids, useful in preparing a medicament for treating or detecting a proliferative disorder, e.g. breast, lung, colorectal, ovarian or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               £
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-SEP-2003; 2003WO-US028547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; SEQ ID NO 490; 7273pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-OCT-2002; 2002US-0414971P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO2004030615-A2
                                                                                   1230
                                                                                                                                                                   1170
                                                                                                                                                                                                                                                    1110
                                                                                                                                                                                                                                                                                                                                   1050
    1290
                                                                                                                                                                                                         181
                                          301
                                                                                                                          241
                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                     990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2004-347921/32.
DB; ABM80197.
                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2177
                                                                                                                                                                                                                                                                                                                                                                                                                   AGGATGCGGTGGAATGGGCAGCGCTGGAGAGCAAGTTGGCTTCAATAAGCCTGGTGGACC
                           CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGGAA
                                                                                                         CATCTACCTGGACAAGGAAACAGGAAAGGCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                            CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                  CAACAGTGCAATTTATGTACAAGGATTAAATGACAATGTGACTCTAGATGATCTGGTAGA
                                                                                                                                                                                                                                                                                CAACAGTGCAATTTATGTACAAGGATTTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                   CATGGATGAAGGACCAGATCTTGATCTAGGCCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                             CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                   CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGAGCAACCCATGATCCA
    CTCACCTACTGCCAAAGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 1349
                                                                                   CACCTACCTGGACAAGGAAACAAGAAAGCCCCAAAGGTGATGCCACAGTGTCCTGTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP; 602 A; 539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              or tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zhou
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ĸ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 908; DB 13;
Pred. No. 3.1e-208;
0; Mismatches 50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    431 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 2177;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                   1109
                                                                                                                                                                                                                                                                                                                                                                            120
                                          360
                                                                                   1289
                                                                                                                                                                1229
                                                                                                                                                                                                                                                  1169
                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                   1049
RESULT 14
AAS62623;
ID AAS62623;
XX AAS62623;
XC AAS62623;
XX Infectious
XM Inmuns sectious
XM inmunosupp
XM inmunosupp
XM inmunosupp
XX AAS62623;
X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                              06-APR-2000; 2000US-0195604P
                                                                                                    29-MAR-2001;
                                                                                                                                               18-OCT-2001.
                                                                                                                                                                                                                                                                                                                                                                          cDNA sequence #410 encoding
                                                                                                                                                                                                                                                                                                                                                                                                                   14-FEB-2002
                       (GEMY ) GENETICS INST INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard;
                                                                                                      2001WO-US010485
                                                                                                                                                                                                                                                                                                                                                                                                                   (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ВP
```

```
immune deficiency disorder; blood disorder; inflammatory disord infectious disorder; gene therapy; antimicrobial; hepatotropic; immunosuppressive; antirheumatic; ss.
                                                                                           secreted protein; hyperproliferative disorder; autoimmune disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAGGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGCAACAAGTGTAAGGCTCCAAAGCCTGAAGGCTTCCTCCCGCCACCCCTTCCCACCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCTGGGGGACCCATGGGTCGCATGGGAGGCCCGTGGAGGAGATAGAGGAGGCTTCCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCCCATGAGGGCAGAGGGATGCCACCACCACTCTGCGGAGGTCCAGGAAGGCCCAGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCCCGTGAGGGCAGAGGCCATCCACCACTCCGTGGAGGTCCAGGAGGCCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTTAAAGTCTCTCTTGCTCGGAAGAGGCCTCCAGTGAACAGTATGCAGGGTGGTATGCC 1409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGAAAAAACGGATAAAGGCGAGCACTGTCAGGAGCGCAGAGATCAGCCCTAC 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGTGGTGG-CTGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACAAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGATCATGGTGGTCCCGGTGGAATGTTCAGAGGTGGCTGTGGTAGAGACAGAAGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGAGACAGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGAGGACCCCAGGGTTCCCGAGGGAACACCTCTGGAGGAGGAAACGTCCAGCACCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -GGACCTTTGATGTAACCAATGGGAGGAAGAAGAGGGGGACGTGAAGGACC
                                                                                                                                                   novel human secreted protein.
                                                                    inflammatory disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1529
```

```
Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 957;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           which encode human secreted proteins. The cDNA sequences have been derived from a variety of human tissues. The invention also provides a method for producing proteins from these polymucleotide sequences. The proteins are useful for identifying compounds that modulate their activity and production, and the cell is also useful for identifying compounds that modulate expression of the polymucleotide sequences encoding the secreted proteins. The sequences of the invention are useful for treating diseases such as hyperproliferative disorders (e.g. cancer), immune deficiency disorders (e.g. severe combined immunodeficiency (SCID)), autoimmune disorders (e.g. multiple sclerosis), blood disorders (e.g. thrombocytopaenia), inflammatory disorders (e.g. arthritis) and infectious disorders (e.g. hepatitis). The polymucleotide sequences of the invention are also useful in gene therapy. AAS62214-AAS62818 represent the CDNA sequences of the invention that encode for novel human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wong GG,
Gulukota
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                polynucleotides encoding
                                                                                                                                                                                                                                                                                                                                                                                                            1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1310
                                                                                                                                                                                                                                                                                                                             1013
                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                      541
                                                                                                                   481
                                                                                                                                                           893
                                                                                                                                                                                                    421
                                                                                                                                                                                                                                          953
                                                                                                                                                                                                                                                                                     361
773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VIH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Clark HF,
K, Graham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Page
                                                                                                                                                                                       ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                     CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                            CATCTACCTGGACAAGGAAACAGGAAAAGCCCCAAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                            CATCTACCTGGACAAGGAAACAGGAAAAGCCCCAAAGGCGATGCCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGGCAACCCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2273
                                      AAGAGGACCCCGGGGTTCCCGAGGGAAACCCCCTCTGGAGGAAAACGTCCAGCAGCAGC 600
                                                                                                      TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGAGGCTTCCCTCC
                                                                                                                                                             ACCCCGTGAGGGCAGAGGCATGCCACCACCTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                            ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                      ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGTTGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGACGCGGTGGAATGG----GCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and Crohn's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP; 477 A; 636 C; 562 G; 598 T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    291; 391pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fechtel JR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            87.2%;
94.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           relates to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 882.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Agostino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              No. 4.6e-202;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      isolation of novel c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                proteins useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Howes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        s have
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2273;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Resnick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sequences
been
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    묎
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1254
                                                                                                                   540
                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                            1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
714
                                                                            774
                                                                                                                                                           834
                                                                                                                                                                                                                                            894
                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                             954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
```

```
S
                                                                         Ś
                                                                                                                                 S
                                                                                                                                                                                     S
                                                                                                                                                                                                                 맑
                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                             밁
닭
                                                   밁
                                                                                                        밁
                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                              584
                                                                                                                                                                                                                   642
                                                                                                                                                                                                                                                                         653
                                                                                                                                                                                                                                                                                                  661
404
                        961
                                                    464
                                                                              901
                                                                                                          524
                                                                                                                                   841
                                                                                                                                                                                       781
                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                             713
                                                                                                                                                                                                                                                                                                                                                        601
 TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                   TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCGCAGAGATCGGCCCCTAC
                                                                            GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAGGACC
                                                                                                                                  CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                         GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                          GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCCGGGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                  GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                               TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                            TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                    GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                              GGATCGTGGTGGT
                                                                                                          reecceeecateeacceaectricectities eaceaecateeccies
353
                        1012
                                                                                960
                                                                                                           465
                                                                                                                                     900
                                                                                                                                                                525
                                                                                                                                                                                         840
                                                                                                                                                                                                                    585
                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                          643
                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                               654
                                                                                                                                                                                                                                                                                                                                                          660
```

RESULT 1:
AB199383
ID AB1
XX AB1
XX AB1
XX AB1
XX PT 07-1
XX MOUN
XX The
PT Exam
PT Exam
PT Get
PT Gen
XX The
CCC Gen
CCC Gen
CCC Gen 07-MAR-2002 ABI99383; ABI99383 standard; WO200188188-A2 Mus musculus vasospastic Mouse; ischaemia; Mouse ischaemic ischaemia; (first condition compressive ischaemia; cDNA; entry) ischaemic 2188 related cDNA sequence 쁌 condition; ischaemic disease; occlusive SEQ ischaemia; H NO:288 88

22-NOV-2001.

18-MAY-2000; 2000JP-00145977 18-MAY-2001; 2001WO-JP004192

(UYNI-) AIND NIHON SCHOOL JURIDICAL PERSON

Ishikawa ۲ Asai ŝ Takahashi ۲ Nagata H K

2002-034733/04 DB; ABB57126.

Examining the ischemic condition (e.g. occlusive ischemia) by measuring expression levels of particular genes defined in the specification or by determining the expression profile of a gene group comprising these genes.

Claim 2; Page 794-799; 2690pp; English.

The present invention describes a method for examining ischaemic conditions, comprising measuring the expression levels of particular genes (1) in a test sample or determining the expression profile of a gene group in the sample comprising genes selected from (1). The method is useful for examining the ischaemic condition (e.g. compressive ischaemia, occlusive ischaemia or vasospastic ischaemia by measuring expression levels of particular genes (ABI99202 to ABI99912, encoding the the

δ 밁 Ś 유 S 밁 δ 밁 Ş 뭉 5 문 Ś 문 S 片 Ś 밁 S

묽

```
Query Match
Best Local Simi
Matches 928;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein sequences in ABB57020 to ABB57374) or by determining the expression profile of a gene group comprising these genes. The expression levels or expression profiles produced by these genes are used as an indicator when screening for ischaemic condition-improving drugs or therapeutics for ischaemic diseases. ABI99913 and ABI99914 represent PCR primers for a mouse ischaemic condition related sequence, which are used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                         1550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1190
                                                                                 1790
                                                                                                                                                                  1730
                                                                                                                                                                                                                                                      1670
                                                                                                                                                                                                                                                                                                                                       1610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1310
  1850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1010
                                       841
                                                                                                                           781
                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                             199
                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity 91.7
28; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGGCGATGCCACAGTGTCCTATGAAGA 300
                                                                                                                                                                                          GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAAGAGGTGGCCTCAT 780
                                                                                                                                                                                                                                                 ATGCAACCAGTGTAAGGCCCCTAAGCCCGAGGGCTTCCTCCCGCCACCCTTTCCACCTCC
                                                                                                                                                                                                                                                                                                                                     TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                      AAGAGGGCCCCGAGGCTCCAGAGGAAACCCCTTTGGAGGAGGAAATGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCTGGAGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGACAGAGGGGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2188 BP; 587 A; 551 C; 638 G; 412 T; 0 U; 0 Other;
                     CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                         GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATCTACCTGGATAAGGAGACAGGAAAGCCTAAAGGGGACGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCTTTAAGCAGTGTGGGGTTGTCAAGATGAACAAGAGAACTGGACAACCCATGATCCA 1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAACAGTGCAATTTATGTGCAAGGATTAAATGACAATGTGACTCTGGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGAGGACGCGGTGGACTGGGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC 1069
CCGAGGTGGCCGTGGAATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGTCCTGG
                                                                                 GGACCGTGGTGCTGGAGGAATGTTCAGAGGTGGCAGAGGTGGAGACAGAGGAGGCTT
                                                                                                                                                                  GGGTGGTGATCGTGGACGAGGTGGCCCTGGTGGCATGCGAGGAGGAAGAGGAGGACTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCTCGTGAGGGCAGGGTATGCCACCACCACTTCGTGGAGGTCCTGGTGGCCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTTAAAGTGTCTCTTGCCCGAAAGAAGCCTCCAATGAACAGCATGCGGGGAAGGCATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCACCAACTGCAAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGAAGCAA 1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   86.9%;
91.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 879.2; DB 6;
Pred. No. 2.7e-201;
0; Mismatches 84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 2188;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                         720
                                       900
                                                                                                                                                                1789
                                                                                                                                                                                                                                                    1729
                                                                                                                                                                                                                                                                                                                                       . 1669
                                                                                                                                                                                                                                                                                                                                                                               . 660
                                                                                                                                                                                                                                                                                                                                                                                                                         1609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1129
                                                                                 1849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
```

र् 밁 ঠ 밁 S 밁 ঠ 밁 ঠ 밁 र् 밁 १ В S 밁 8 밁 र् 밁 ş 밁 S 밁 र् 밁 5

밁

DЪ	Ś	ф	Ş
1970 TGGGAAAATGGATAAAGGCGAGCACCGTCAGGAACGCAGAGAACCGGCCCTAC 2021	961 TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCGAGAGATCGGCCCTAC 1012	1910 GGGCCTCCTGGACCTTTAATGGAACAGATGGGAAGAAGAAGAGGCGGACGTGGAGGACC 1969	901 GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAAGACGTGGAGGACC 960

Search completed: February Job time: 495.802 secs 20 , 05:30:50

र्

밁

ន្តន្តន្តន្តន្តន្

This Page Blank (uspto)

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence:
                                                                                                                                                                                        ი
      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                    1010.4
956
956
911.2
860
338
258.4
258.4
258.4
258.6
1135.8
1135.8
1135.8
1111.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score
                         66.4
64.6
59.8
59.8
                                                                                                                           70.2
67
67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Issued_Patents_NA:*

1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*

2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*

3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*

4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*

5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*

6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     February 20, 2005, 04:13:53; Search time 167.828 Seconds (without alignments) 9866.749 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1202784 segs, 818138359 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 aggacgcggtggaatgggca....agcgcagagatcggccctac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-791-017A-1_COPY_1000_2011
1012
                                                                                                                                                                                        99.449
99.449
99.449
99.449
99.553.00
99.553.00
99.553.00
99.553
    33.4 411
25.5 35784
25.5 35784
25.6 3601
21.0 601
13.4 601
13.4 601
13.4 601
13.4 601
13.4 601
14.0 450
17.3 114793
6.6 152135
6.6 152145
6.6 152145
6.6 6 152145
6.6 6 152145
6.6 6 152145
6.6 6 152145
6.6 6 152145
6.6 6 152145
6.6 6 152145
6.6 6 152145
6.6 6 152145
6.6 6 152145
6.6 6 152145
6.6 6 152145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             띪
                    US-08-343-443B-1
US-09-949-016-5043
US-09-949-016-13696
US-09-949-016-1361
US-09-949-016-16785
US-09-949-016-176641
US-09-949-016-176641
US-09-949-016-176631
US-09-949-016-176631
US-09-949-016-176631
US-09-949-016-176661
US-09-949-016-176661
US-09-949-016-176661
US-09-949-016-176661
US-09-949-016-176661
US-09-949-016-176661
US-09-949-016-13845
US-09-949-016-12371
US-09-949-016-176640
US-09-949-016-176640
US-09-949-016-176640
US-09-949-016-1766640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2405568
                                                                           Sequence 1, Appli
Sequence 5043, Ap
Sequence 5044, Ap
Sequence 13696, A
Sequence 13616, A
Sequence 16785, A
Sequence 17664,
Sequence 176637,
Sequence 176637,
Sequence 176637,
Sequence 176660,
Sequence 176660,
Sequence 176660,
Sequence 176681,
Sequence 13845, Ap
Sequence 13845, A
                       Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Description
Sequence
    176663,
1, Appli
416, App
12052, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 1
```

ი	Ω	ი	Ω	ი	ი	ი		O	O				ი	Ω	ი	a	ი
45	44	43	42	41	<u>4</u>	9	38	37	36	υ 5	<u>د</u> 4	ω W	32	31	30	29	28
51.4	51.4	52.8	52.8	53.6	54	54.2	54.6	55.2	55.2	55.2	55.4	55.4	57	57	57.8	58.6	58.8
5.1	5.1	5.2	5.2	ω	5 .u	5.4	5 .4	ຫ ຫ	5.5	5.5	5.5	5.5	5.6	5.6	5.7	5.8	5.8
472	472	3835	539	324	1638	246	525	767677	767677	242	5682	1505	1931	.1926	12695	7218	128470
_	_	4	4	4	4	4	4	4	4	4	4	4	N	w	4	_	4
US-08-484-332C-2	US-08-361-467B-2	US-09-270-767-10943	US-09-270-767-26436	US-09-547-693-234	US-09-799-451-412	US-09-547-693-232	US-09-640-211A-177	US-09-949-016-17361	US-09-949-016-12147	US-09-354-147C-30	US-10-164-595-1	US-09-620-312D-544	US-09-130-114-2	US-09-249-585A-4	US-09-949-016-16775	US-08-232-463-14	US-09-949-016-13765
	Sequence	Sequence	Sequence	Sequence	Sequence	Seguence	Sequence	Séquence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence
2, Appli	2, Appl	10943, 7	26436, A	234, App	412, Ap	232, Ap	177, Ap	17361, A	12147,	30, App	: 1, Appli	544, Ap	 Appli 	4, Appl:	16775, A	14, App.	13765, 1

ALIGNMENTS

HERRITARIA GORDON DE RESTRICTOR DE LA CONTROL DE LA CONTRO	Sequence 1, Application US/08343443B
HERNING ON MAN TO THE REST OF	GRNERAI, INFORMATION:
APPLICANT: Delattre, Olivier APPLICANT: Demara, Chantel APPLICANT: Melot, Thomas APPLICANT: Melot, Thomas APPLICANT: Peter, Martine APPLICANT: Demara, Cilles APPLICANT: Thomas, Gilles APPLICANT: Thomas, Gilles APPLICANT: Thomas, Jessica CID CORRESPONDING TO A GENE OF TITLE OF INVENTION: UNCLEIC ACID CORRESPONDING TO A GENE OF TITLE OF INVENTION: TRANSLATIONS ASSOCIATED MITH THE DEVELOPMENT OF CANCEROUS TITLE OF INVENTION: TRANSLATIONS ASSOCIATED MITH THE DEVELOPMENT OF CANCEROUS TITLE OF INVENTION: TRANSLACATIONS UNMEER OF SEQUENCES: 129 CORRESPONDENCE ADDRESS: 129 COUNTRY: Philadelphia STATE: PA COUNTRY: USA ZIP: 19102 COMPUTER READABLE FORM: COMPUTER READABLE FORM: COMPUTER: IS PAC Compatible COMPUTER: PACE COMPATIBLE COMPUTER: OF COMPATIBLE APPLICATION NUMBER: OF COMPATIBLE APPLICATION OF C	•
APPLICANT: Desmaze, CHARTEAL APPLICANT: Desmaze, CHARTEAL APPLICANT: Peter, Martine APPLICANT: Peter, Martine APPLICANT: Peter, Martine APPLICANT: Phomas, Gilles APPLICANT: Thomas, GILLE TITLE OF INVENTION: THOMOSOME 22 INVOLVED IN RECURRENT OF CANCEROUS TITLE OF INVENTION: THOMOSOME 22 INVOLVED IN RECURRENT OF CANCEROUS TITLE OF INVENTION: THOMOSOME ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS TITLE OF INVENTION: THOMOSO, AND NUCLEIC ACIDS OF FUSION RESULTING FROM SAID NUMBER OF SEQUENCES: 129 CORRESSES: Welser & ASSOCIATES STREET: 230 SOUTH Fifteenth Street CITY: Philadelphia TITLE OF INVENTION STATE MEDIUM TYPE: Ploppy disk COMPUTER READABLE FORM: WEDDING TYPE: Ploppy disk COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: AEDIT 1.0 DOS text editor CURRENT APPLICATION NUMBER: US/08/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION UNMER: PCT/FR93/00494 PRILOR APPLICATION DATA: APPLICATION NUMBER: PCT/FR93/00494 PRILOR APPLICATION DATA: APPLICATION DATA: PR 92/06123 APPLICATION DATA: PR 92/06123 APPLICATION DATA: PR 92/06123 APPLICATION DATA: PR 92/06123 APPLICATION UNMER: 19-63 APPLICATION UNMER: 19-763 REFERENCE/DOCKET NUMBER: 989.6121P TELEPHONS: 215-875-8394 INFORMATION FOR SEQ ID NO: 1:	••
APPLICANT: Peter, Martine APPLICANT: Photougastel, Beatrice APPLICANT: Thomas, Gilles APPLICANT: Thomas, Gilles APPLICANT: Zucman, Jessica APPLICANT: Zucman, Jessica APPLICANT: Zucman, Jessica TITLE OF INVENTION: CHROMOSOME 22 INVOLVED IN RECURRENT CHROMOSOMAL TITLE OF INVENTION: TRANSLATIONS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS TITLE OF INVENTION: TRANSLATIONS AND NUCLEIC ACIDS OF FUSION RESULTING FROM SAID TITLE OF INVENTION: TRANSLOCATIONS NUMBER OF SEQUENCES: 129 CORRESPONDENCE ADDRESS: ADDRESSE: Weiser & Associates STREET: 230 South Fifteenth Street CITY: Philadelphia STATE: PA COUNTRY: USA ZIP: 19102 COMPUTER READABLE FORM: MEDIUM TYPE: Ploppy disk COMPUTER READABLE FORM: MEDIUM TYPE: Ploppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: AEDIT 1.0 DOS text editor CLASSIFICATION NUMBER: PC-DOS/MS-DOS SOFTWARE: 18-MOV-1994 PILING DATE: 18-MOV-1994 PILING DATE: 18-MOV-1994 PRICK APPLICATION DATA: APPLICATION NUMBER: PCT/FR93/00494 PRICK APPLICATION DATA: APPLICATION NUMBER: PCT/FR93/00494 PRICK APPLICATION DATA: APPLICATION NUMBER: PCT/FR93/00494 PRICK APPLICATION DATA: RESERVED/DATABLE PCT/FR93/00494 PRICK APPLICATION NUMBER: PCT/FR93/00494 PRICK APPLICATION NUMBER: PCT/FR93/00494 PRICK APPLICATION DATA: RESERVED/DATABLE PCT/FR93/00494 PRICK APPLICATION DATA: PRICK APPLICATION DATA: P	. Melot, T
APPLICANT: PLOCUGASCE, Beatrice APPLICANT: Thomas, Gilles APPLICANT: Thomas, Jessica APPLICANT: TITLE OF INVENTION: WUCLEIC ACID CORRESPONDING TO A GENE OF TITLE OF INVENTION: TRANSLATIONS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS TITLE OF INVENTION: TRANSLATIONS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS TITLE OF INVENTION: TRANSLATIONS NUMBER OF SEQUENCES: 129 CORRESPONDENCE ADDRESS: 129 CORRESPONDENCE ADDRESS: 129 CORRESPONDENCE ADDRESS: ADDRESSE; Weiser & ASSOCIATES STREET: 230 SOUTH Fifteenth Street CITY: Philadelphia COUNTRY: USA COUNTRY: USA COUNTRY: USA COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: AEDIT 10. DOS text editor CURRENT APPLICATION NUMBER: US/08/343,443B FILING DATE: 19-MOY-1994 CLASSIFICATION NUMBER: US/08/343,443B FILING DATE: 19-MOY-1994 PAIOR APPLICATION DATA: APPLICATION NUMBER: PC/FR93/00494 FILING DATE: 19-MOY-1993 PAIOR APPLICATION NUMBER: PS/FR93/00494 FILING DATE: 19-MOY-1993 PARETENENCS/DOCKET NUMBER: PS/FR93/00494 FILING DATE: 19-MOY-1993 PRICESPANCES DOCKET NUMBER: PS/FR93/00494 FILING DATE: 19-MOY-1993 INFORMATION FOR SEQ ID NO: 1:	Peter,
APPLICANT: Thomas, Gilles APPLICANT: ZUGMAN, Jessica TITLE OF INVENTION: CHROMOSOME 22 INVOLVED IN RECURRENT CHROMOSOMAL TITLE OF INVENTION: THOMAS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS TITLE OF INVENTION: THOMAS, AND NUCLEIC ACIDS OF FUSION RESULTING FROM SAID TITLE OF INVENTION: THOMAS, AND NUCLEIC ACIDS OF FUSION RESULTING FROM SAID NUMBER OF SEQUENCES: 129 CORRESPONDENCE ADDRESS: ADDRESSEE: Weiser & Associates STREET: 230 South Fifteenth Street CITY: Philadelphia STATE: PA COUNTRY: USA ZIP: 19102 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: LEW CC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTMARE: ABEDIT 1.0 DOS text editor CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/343,443B FILING DATE: 19-MQY-1994 PAIOR APPLICATION NUMBER: PCT/FR93/00494 PILING DATE: 19-MQY-1994 PAIOR APPLICATION NUMBER: PCT/FR93/00494 PILING DATE: 19-MQY-1993 PAIOR APPLICATION NUMBER: PS 92/06123 ATTORNEY/AGENT INFORMATION: NAME: Weiser, Gerard J. RESISTRATION UNMBER: PS 93/6121P TELEPOMUNICATION INFORMATION: TELEPOMUNICATION INFORMATION: TELEPOMUNICATION OF SEQ ID NO: 1: INFORMATION POS SEQ ID NO: 1:	••
APPLICANT: ZUCMAN, Jessica TITLE OF INVENTION: NUCLEIC ACID CORRESPONDING TO A GENE OF TITLE OF INVENTION: CHROMOSOME 22 INVOLVED IN RECURRENT CHROMOSOMAL TITLE OF INVENTION: TRANSLATIONS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS TITLE OF INVENTION: TRANSLACIONS WITH THE DEVELOPMENT OF CANCEROUS TITLE OF INVENTION: TRANSLACIONS NUMBER OF SEQUENCES: 129 CORRESPONDENCE ADDRESS: 129 COMPUTER: Philadelphia COUNTRY: USA COUNTRY: USA COUNTRY: USA COUNTRY: USA COMPUTER: IBM PC compatible COMEDIAN TYPE: Ploppy disk COMPUTER: LADDLE FORM: MEDIUM TYPE: LODS/MS-DOS SOFTWARE: ADDLICATION DATA: APPLICATION NUMBER: US/08/343,443B FILING DATE: 19-MOV-1994 CLASSIFICATION NUMBER: PC-DOS/MS-343,443B FILING DATE: 19-MOV-1994 FILING DATE: 19-MOV-1993 PRIOR APPLICATION NUMBER: PC-DOS/MS-1993 PRIOR APPLICATION NUMBER: PC-DOS/MS-1993 PRIOR APPLICATION NUMBER: 19,763 REFERENCE/DOCKET NUMBER: 19,763 REFERENCE/DOCKET NUMBER: 989.6121P TELECOMMUNICATION HOPOMATION: TELEPHONE: 215-875-8394 INFORMATION FOR SEQ ID NO: 1:	
TITLE OF INVENTION: NUCLEIC ACID CORRESPONDING TO A GENE OF TITLE OF INVENTION: TRANSLATIONS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS TITLE OF INVENTION: TRANSLATIONS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS TITLE OF INVENTION: TRANSLACIATED WITH THE DEVELOPMENT OF CANCEROUS TITLE OF INVENTION: TRANSLACIATED WITH THE DEVELOPMENT OF CANCEROUS TITLE OF INVENTION: TRANSLACIATED WITH THE DEVELOPMENT OF CANCEROUS INVENTION: 120 CONCERNS: AND NUCLEIC ACIDS OF FUSION RESULTING FROM SAID TITLE OF INVENTION: 120 CORRESPONDENCE ADDRESS: ADDRESSES: Weiser Associates STREET: 230 South Fifteenth Street CITY: Philadelphia STREET: 230 South Fifteenth Street CITY: Philadelphia SIP: 19102 COMPUTER: PA COUNTRY: USA ZIP: 19102 COMPUTER: PA COUNTRY: USA ZIP: 19102 COMPUTER: ISH PC Compatible OPERATING SYSTEM: PC CONS/MS-DOS SOFTWARE: ADDIT 1.0 DOS text editor CURRENT APPLICATION NUMBER: US/08/343,443B FILING DATE: 19-MAY-1994 CLASSIFICATION NUMBER: PC 1908/343,443B FILING DATE: 19-MAY-1994 CLASSIFICATION NUMBER: PC 20/8/30/494 FILING DATE: 19-MAY-1993 PRIOR APPLICATION NUMBER: PR 92/06123 FILING DATE: 19-MAY-1993 PRIOR APPLICATION NUMBER: 19-M3/999-6121P TELECOMMUNICATION NUMBER: 19-M3/999-6121P TELECOMMUNICATION THORMATION: NAME: Weiser, GEFIELD NO: 1:	r: Zucman, J
TITLE OF INVENTION: CHROMOSOME 22 INVOLVED IN RECURRENT CHROMOSOMAL TITLE OF INVENTION: TUMORS, AND NUCLEIC ACIDS OF FUSION RESULTING FROM SAID TITLE OF INVENTION: TUMORS, AND NUCLEIC ACIDS OF FUSION RESULTING FROM SAID TITLE OF INVENTION: TUMORS, AND NUCLEIC ACIDS OF FUSION RESULTING FROM SAID TORRESSED OF SEQUENCES: 129 CORRESSONDENCE ADDRESS: ADDRESSE: Welser & Associates STREE: ADDRESSE: Welser & ASSOCIATES COMPUTER: ISONE Compacible OPERATING SYSTEM: ADDRESSED SONE SOFTWARE ABDIT 10 DOS text editor CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/343,443B FILING DATE: 19-MAY-1993 FILING DATE: 19-MAY-1993 APPLICATION NUMBER: PCT/FE93/00494 FILING DATE: 19-MAY-1993 PRIOR APPLICATION DATA: APPLICATION NUMBER: PR 92/06123 APPLICATION NUMBER: PR 92/06123 APPLICATION NUMBER: 19-MAY-1993 APPLICA	OF INVENTION:
TITLE OF INVENTION: TRANSLATIONS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS TITLE OF INVENTION: TRANSLOCATIONS NUMBER OF SEQUENCES: 129 CORRESPONDENCE ADDRESS: ADDRESSE: Weiser & Associates STREET: 230 South Fifteenth Street CITY: Philadelphia STREET: 230 South Fifteenth Street CITY: Philadelphia STATE: PA COUNTRY: USA ZIP: 19102 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: ISH PC compatible OPERATING SYSTEM: PC-COMPATIBLE OF MS-DOS SOFTWARE: ABEDIT 1.0 DOS text editor CURRENT APPLICATION DATA: APPLICATION UNMBER: US/08/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION: 514 PRIOR APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION UNMBER: PCT/FR93/00494 FILING DATE: 19-MAY-1993 PRIOR APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION UNMBER: PCT/FR93/00494 FILING DATE: 20-MAY-1992 ATTORNEY/AGENT INFORMATION: NAME: Weiser: Gerard J. REGISTRATION UNMBER: 19,763 REFERENCE/DOCKET NUMBER: 19,763 REFERENCE/DOCKET NUMBER: 989.6121P TELECOMMUNICATION TON BED IN NO: 1: TELEPHONE: 215-875-8383 TELEPHONE: 215-875-8394 INFORMATION FOR SEQ ID NO: 1:	OF INVENTION:
TITLE OF INVENTION: TUMORS, AND NUCLEIC ACIDS OF FUSION RESULTING FROM SAID NUMBER OF SEQUENCES: 129 CORRESPONDENCE ADDRESS: ADDRESSESSE: Weiser & Associates STREET: 230 South Fifteenth Street CITY: Philadelphia STATE: PA COUNTRY: USA ZIP: 19102 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: AEDIT 1.0 DOS text editor CURRENT APPLICATION DATA: APPLICATION NUMBER: US/06/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION STA: APPLICATION DATA: APPLICATION NUMBER: PCT/FR93/00494 FILING DATE: 19-MAY-1993 PRIOR APPLICATION DATA: APPLICATION NUMBER: PCT/FR93/00494 FILING DATE: 19-MAY-1992 ATTORNEY/ACENT INFORMATION: NAME: Weiser: Gerard J. REGISTRATION NUMBER: 19,763 REFERENCE/DOCKET NUMBER: 989.6121P TELECOMMONICATION INFORMATION: TELEPHONE: 215-875-8383 TELEPHONE: 215-875-8383 INFORMATION FOR SEQ ID NO: 1:	OF INVENTION:
TITLE OF INVENTION: TRANSLOCATIONS NUMBER OF SEQUENCES: 129 CORRESPONDENCE ADDRESS: ADDRESSE: Welser & Associates STREET: 230 South Fifteenth Street CITY: Philadelphia COUNTRY: USA ZIP: 19102 COMPUTER READABLE FORM: MEDIUM TYPE: Ploppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: ABDIT 1.0 DOS text editor CURRENT APPLICATION NUMBER: US/08/343,443B FILING DATE: 18-NOV-1994 PRICASIFICATION SIMMER: US/08/343,443B FILING DATE: 18-NOV-1994 APPLICATION NUMBER: PC/FR93/00494 FILING DATE: 19-MAY-1993 PRIOR APPLICATION NUMBER: PS/FR93/00494 FILING DATE: 19-MAY-1993 PRIOR APPLICATION NUMBER: PS/O6123 FILING DATE: 20-MAY-1992 ATTORNEY/AGENT INFORMATION: NAME: Welser, Gerard J REGERENCE/DOCKET NUMBER: 989.6121P TELECOMMUNICATION INFORMATION: TELEPAN: 215-875-8394 INFORMATION FOR SEQ ID NO: 1:	OF INVENTION:
CORRESPONDENCE ADDRESS: ADDRESSEE: Weiser & Associates STREET: 230 South Fifteenth Street CITY: Philadelphia STATE: PA COUNTRY: USA ZIP: 19102 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: AEDIT 1.0 DOS text editor CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION DATA: APPLICATION NUMBER: PCT/FR93/00494 FILING DATE: 19-NAY-1993 PRIOR APPLICATION NUMBER: PC7/FR93/00494 FILING DATE: 19-NAY-1993 PRIOR APPLICATION NUMBER: PS/06123 FILING DATE: 20-NAY-1992 ATTORNEY/AGENT INFORMATION: NAMB: Weiser, Gerard J REGERENCE/DOCKET NUMBER: 19,763 REFERENCE/DOCKET NUMBER: 19,763 REFERENCE/DOCKET NUMBER: 989.6121P TELEPAN: 215-875-8394 INFORMATION FOR SEQ ID NO: 1:	OF INVENTION:
CORRESPONDENCE ADDRESS: ADDRESSEE: Weiser & Associates STREET: 230 South Fifteenth Street CITY: Philadelphia STATE: PA COUNTRY: USA ZIP: 19102 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: AEDIT 1.0 DOS text editor CURRENT APPLICATION NUMBER: US/08/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION NUMBER: US/08/343,443B FILING DATE: 19-MOV-1994 PRIOR APPLICATION NUMBER: PCT/FR93/00494 FILING DATE: 19-MAY-1993 PRIOR APPLICATION NUMBER: PS 92/06123 FILING DATE: 19-MAY-1993 PRIOR APPLICATION NUMBER: FR 92/06123 FILING DATE: 20-MAY-1992 ATTORNEY/AGENT INFORMATION: NAME: Weiser, Gerard J. REGISTRATION NUMBER: 989.6121P TELECOMMUNICATION INFORMATION: TELEPAX: 215-875-8394 INFORMATION FOR SEQ ID NO: 1:	
ADDRESSE: Weiser & Associates STREET: 230 South Fifteenth Street CITY: Philadelphia STATE: PA COUNTRY: USA ZIP: 19102 COMPUTER READABLE FORM: MEDIUM TYPE: Ploppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: AEDIT 1.0 DOS text editor CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION DATA: APPLICATION LOTA: APPLICATION NUMBER: PCT/FR93/00494 FILING DATE: 19-MAY-1993 PRIOR APPLICATION NUMBER: PR 92/06123 PRIOR APPLICATION NUMBER: FR 92/06123 FILING DATE: 20-MAY-1992 ATTORNEY/AGENT INFORMATION: NAME: Weiser, Gerard J. REGISTRATION NUMBER: 19,763 REFERENCE/DOCKET NUMBER: 989.6121P TELECOMUNICATION INFORMATION: TELEPHONE: 215-875-8383 TELEPHONE: 215-875-8394 INFORMATION FOR SEQ ID NO: 1:	CORRESPONDENCE ADDRESS:
STREET: 230 South Fifteenth Street CITY: Philadelphia STATE: PA STATE: PA STATE: PA COUNTRY: USA ZIP: 19102 COMPUTER READABLE FORM: MEDIUM TYPE: Ploppy disk COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: AEDIT 1.0 DOS text editor CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION DATA: APPLICATION NUMBER: PCT/FR93/00494 FILING DATE: 19-MAY-1993 RAIGR APPLICATION DATA: APPLICATION NUMBER: PCT/FR93/00494 FILING DATE: 19-MAY-1993 RAIGR APPLICATION DATA: APPLICATION NUMBER: FR 92/06123 FILING DATE: 20-MAY-1992 ATTORNEY/AGENT INFORMATION: NAME: Weiser, Gerard J. REGISTRATION NUMBER: 19,763 REFERENCE/DOCKET NUMBER: 989.6121P TELECOMMUNICATION INFORMATION: TELEPAX: 215-875-8383 TELEPAX: 215-875-8394 INFORMATION FOR SEQ ID NO: 1:	ADDRESSEE: Weiser & Associates
STATE: PALLAGELPHIA STATE: PA COUNTRY: USA ZIP: 19102 COMPUTER REALABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: AEDIT 1.0 DOS text editor CURRENT APPLICATION NUMBER: US/08/343,443B FILING DATE: 18.NOV-1994 CLASSIFICATION NUMBER: PCT/FP3/00494 FRIOR APPLICATION NUMBER: PCT/FR3/00494 FILING DATE: 19-MAY-1993 PRIOR APPLICATION NUMBER: PR 92/06123 FILING DATE: 19-MAY-1992 ATTORNEY/AGENT INFORMATION: NAME: Weiser, Gerard J. REGISTRATION NUMBER: 989.6121P TELECOMMUNICATION INFORMATION: TELEPAX: 215-875-8383 TELEPAX: 215-875-8394 INFORMATION FOR SEQ ID NO: 1:	,
COUNTRY: USA ZIP: 19102 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM FC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: AEDIT 1.0 DOS text editor CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION DATA: APPLICATION UNDER: PCT/FR93/00494 PRIOR APPLICATION DATA: APPLICATION NUMBER: PCT/FR93/00494 FILING DATE: 19-MAY-1993 PRIOR APPLICATION DATA: APPLICATION NUMBER: PR 92/06123 FILING DATE: 20-MAY-1992 ATTORNEY/AGENT INFORMATION: REGISTRATION NUMBER: 19,763 REFERENCE/DOCKET NUMBER: 989.6121P TELECOMMUNICATION INFORMATION: TELEPAX: 215-875-8383 TELEPAX: 215-875-8394 INFORMATION FOR SEQ ID NO: 1:	
ZIP: 19102 ZIP: 19102 COMPUTER READABLE FORM: MEDIUM TYPE: Ploppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTMARE: AEDIT 1.0 DOS text editor CURRENT APPLICATION NOTATA: APPLICATION NUMBER: US/08/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION DATA: APPLICATION NUMBER: PCT/FR93/00494 FILING DATE: 19-MAY-1993 PRIOR APPLICATION DATA: APPLICATION NUMBER: PS 2/06123 APPLICATION NUMBER: FR 92/06123 APPLICATION NUMBER: FR 92/06123 APPLICATION NUMBER: J9/63 REPERENCES/DOCKET NUMBER: 19,763 REFERENCES/DOCKET NUMBER: 989.6121P TELECOMMUNICATION INFORMATION: TELEPAN: 215-875-8383 TELEPAN: 215-875-8383 INFORMATION FOR SEQ ID NO: 1:	· 12
COMPUTER READABLE FORM: MEDIUM TYPE: Ploppy disk COMPUTER: IBM PC Compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: AEDIT 1.0 DOS text editor CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION DATA: APPLICATION NUMBER: PCT/FR93/00494 PRIOR APPLICATION DATA: APPLICATION NUMBER: PCT/FR93/00494 FILING DATE: 19-MAY-1993 PRIOR APPLICATION DATA: APPLICATION NUMBER: FR 92/06123 FILING DATE: 20-MAY-1992 ATTORNEY/AGENT INFORMATION: NAMB: Weiser, Gerard J REGISTRATION NUMBER: 19,763 REFERENCE/DOCKET NUMBER: 989.6121P TELECOMMUNICATION INFORMATION: TELEPAX: 215-875-8383 TELEPAX: 215-875-8383 TELEPAX: 215-875-8394 INFORMATION FOR SEQ ID NO: 1:	1916
MEDIUM TYPE: Floppy disk COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: AEDIT 1.0 DOS text editor CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION DATA: APPLICATION NUMBER: PCT/FR93/00494 FILING DATE: 19-MAY-1993 PRIOR APPLICATION DATA: APPLICATION NUMBER: P8 92/06123 FILING DATE: 20-MAY-1992 ATTORNEY/AGENT INFORMATION: NAMB: Weiser, Gerard J REGISTRATION UMBER: 19,763 REFERENCE/DOCKET NUMBER: 989.6121P TELECOMUNICATION INFORMATION: TELEPAN: 215-875-8383 TELEPAN: 215-875-8394 INFORMATION FOR SEQ ID NO: 1:	COMPUTER READABLE FORM:
COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: AEDIT 1.0 DOS text editor CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION S14 PRIOR APPLICATION DATA: APPLICATION NUMBER: PCT/FR93/00494 FILING DATE: 19-MAY-1993 PRIOR APPLICATION DATA: APPLICATION NUMBER: FR 92/06123 FILING DATE: 20-MAY-1992 ATTORNEY/AGENT INFORMATION: NAME: Weiser, Gerard J. REGISTRATION UNMBER: 989.6121P TELECOMMUNICATION INFORMATION: TELEPHONE: 215-875-8383 TELEPAX: 215-875-8394 INFORMATION FOR SEQ ID NO: 1:	MEDIUM TYPE: Floppy disk
CURRENT APPLICATION DATA: APPLICATION UNMER: US/08/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION LOTA: APPLICATION UNMER: US/08/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION UNMER: PCT/FR93/00494 FILING DATE: 19-MAY-1993 PRIOR APPLICATION DATA: APPLICATION UNMER: FR 92/06123 FILING DATE: 20-MAY-1992 ATTORNEY/AGENT INFORMATION: REGISTRATION NUMBER: 19,763 REFERENCES/DOCKET NUMBER: 989.6121P TELECOMMUNICATION INFORMATION: TELEPAX: 215-875-8383 TELEPAX: 215-875-8394 INFORMATION FOR SEQ ID NO: 1:	COMPUTER: IBM PC compatible
CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/343,443B FILING DATE: 19-NOV-1994 CLASSIFICATION 514 PRIOR APPLICATION DATA: APPLICATION UNBER: PCT/FR93/00494 PILING DATE: 19-MAY-1993 PRIOR APPLICATION NUMBER: PCT/FR93/00494 PILING DATE: 19-MAY-1993 PRIOR APPLICATION NUMBER: PR 92/06123 PRIOR APPLICATION NUMBER: PR 92/06123 PILING DATE: 20-MAY-1992 ATTORNEY/AGENT INFORMATION: NAME: Weiser, Gerard J. REFIERENCE/DOCKET NUMBER: 19,763 REFERENCE/DOCKET NUMBER: 989.6121P TELECOMMUNICATION INFORMATION: TELEPHONE: 215-875-8383 TELEPAX: 215-875-8394 INFORMATION FOR SEQ ID NO: 1:	71
994 994 993 993 992 992 992 993 119,7	SUPTWARK: ABULT 1.0 DOS CEXT EQUICOR
994 993 993 992 992 992 992 993 119,7	ADDITON WINDER INS/08/343 443B
993 993 R 92 992 ON: J., 119,7	ETLING DATE: 18-NOV-1994
993 993 992 992 992 993 119,7	CLASSIFICATION: 514
993 993 R 92 992 992 ON: J. J. R: R: R: R: R: 119,7	PRIOR APPLICATION DATA:
993 992 992 ON: J. 119,7 ATIC 83	APPLICATION NUMBER: PCT/FR93/00494
992 992 ON: J., T19,7 ATTIC 83	FILING DATE: 19-MAX-1993
992 ON: J. 119,7 ATIC 83	APPLICATION NUMBER: FR 92/06123
ON: J. 119,7 R: R: R: R: R: 1:	7
19,7 R: ATIC 83	ATTORNEY/AGENT INFORMATION:
R: R: ATIC 83	NAME: Weiser, Gerard J.
ATIC 83	REGISTRATION NUMBER: 19/63
TELEPHONE: 215-875-8383 TELEPAX: 215-875-8394 INFORMATION FOR SEQ ID NO: 1:	TELECOMUNICATION INFORMATION
	TELEPHONE: 215-875-8383
	.~
	INFORMATION FOR SEQ ID NO: 1:

```
र्
                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                S
                                                                                                          Ś
                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                  δ
                                         밁
                                                                                      밁
                                                                                                                                  밁
                                                                                                                                                      Ś
                                                                                                                                                                          밁
                                                                                                                                                                                             S
                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-343-443B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 1011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 2371 base pai
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1161
1821
                                           1761
                                                                                      1701
                                                                                                                                   1641
                                                                                                                                                                             1581
                                                                                                                                                                                                                         1521
                                                                                                                                                                                                                                                                    1461
                                                                                                                                                                                                                                                                                                                                                            1341
                                                                                                                                                                                                                                                                                                                                                                                                       1281
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1041
                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 186
                                                                                                                                                                                                    601
                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                    841
                                                                781
                                                                                                            721
                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTTGCTTCAATAAGCCTTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATGGATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                     GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAGGAAGAGGTGGCCTCAT
                                                                                                                                               GTGCAACCAGTGTAAGGCCCCAAAGGCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                         TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                         AAGAGGACCCCGGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                            ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                  ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCC 420
                                                                                                                                                                                                                                                                                                                                                                                                                   CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAAGGCGATGCCAAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                      CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTTGG 900
                                                                  GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                         AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                       CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                               TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                        TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1010.4; DB 2
Pred. No. 2.8e-254;
D; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                1460
                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                        1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1100
                                                                 840
                                                                                                                                                                                                                                                                      1520
                                                                                                                                                                                                                                                                                                                                                            1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1040
 1880
                                            1820
                                                                                                                                   1700
                                                                                                                                                                               1640
                                                                                                                                                                                                                         1580
                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             片
                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
    S
                               밁
                                                  S
                                                                            밁
                                                                                             á
                                                                                                                       뮍
                                                                                                                                           S
                                                                                                                                                                    밁
                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1881
                                1247
                                                                                                                         1127
                                                                                                                                                                                                               1007
                                                                                                                                                                     1067
          537
                                                                                                   417
                                                                                                                                                                                         297
                                                                                                                                                                                                                                                           947
                                                                                                                                                                                                                                                                                177
                                                                                                                                                                                                                                                                                                      887
```

```
FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR PRILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FRAELSEQ for Windows Version 4.0

SEQ ID NO 5043

LENGTH: 1785

TYPE: DNA

CLONARION NUMBER: 00/231,498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 2
US-09-949-016-5043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Human
US-09-949-016-5043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 5043, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 94.5%; Score 956; DB 4; L
Best Local Similarity 100.0%; Pred. No. 4.2e-240;
Matches 956; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            57 GACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACCT
                                                                                                                                                                                                                                                                                                                                GCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCACATCTACCTGGACAAGGAAAACAGGAAAAGCCCAAAGGCGATGCCACAGTGTCCTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGACTTCTTTAAGCAGTGTGGGGTTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGAGGAGGACGTGGAGGACC
CTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACC
                                                                                                   GAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCCGTGGAGGAGATAGAGGAGGCTTCC
                                                                                                                                GAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGGGCTTCC
                                                                                                                                                                                                       TGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAG
                                                                                                                                                                                                                                    TGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACCACCTCCGTGGAGGTCCAGGAGGCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGA
                       CTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACC
                                                                                                                                                                                                                                                                                                           CCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ASSOCIATED OF DETECTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AND USES
                                                                                                                                                                                                                                                                                                                                                        416
                                                                                                                                                                                                                                                                                                                                                                                                                                                         356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                       476
                                                                                                                                                                                                                                                                                                        1186
                                                                                                                                                                                                                                                                                                                                                                                                          1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1940
                                                                                                                                                                                                       1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   116
  1366
                                                 596
                                                                                                   1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
```

```
NUMBER OF SEQ ID NOS: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FASTSEQ for Windows Version 4.

SEQ ID NO 5044

LENGTH: 1785

TYPE: DNA

ORGANISM: Human
US-09-949-016-5044
                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASS

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498
               S
                                               밁
                                                                        8
                                                                                                         밁
                                                                                                                                Ś
                                                                                                                                                                   밁
                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 3
US-09-949-016-5044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 956; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 5044, Application US/09949016 Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     777
                                                947
                                                                                                         887
                                                                                                                                     117
                                                                                                                                                                    827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   597
                  237
                                                                           177
                                                                                                                                                                                                 57
                                                                                                                          CTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGG
                                                                                                                                                                                    GACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACT
TCCACATCTACCTGGACAAGGAAACAGGAAAGGCCAAAGGCGATGCCACAGTGTCCTATG
                                                                CAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCCATGA
                                                                                                                                                                    GACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGC 1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGCTGGAGACTGCCAGTGTCCCGAATCCGGGTTGTGGAAAACCAGAACTTCGCCTGGAGAA
                                                CAGACT
                                                                                                       CTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAG 956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCC 1666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCC 896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAAGAAGAGGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCATGGATCGTGGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCCGTGGTGGAGACAGAGGTG 160
                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                       94.5%; or
100.0%; Pr
                                                                                                                                                                                                                          Score 956; DB 4; Length 1785; Pred. No. 4.2e-240; 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ASSOCIATED
OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                           0
                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              776
                                                                           236
                                                                                                         946
                                                                                                                                     176
                                                                                                                                                                   886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    836
                 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1426
                                                1006
                                                                                                                                                                                                                                                                                                  RESULT 4
US-09-949-016-13696
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                 몽
                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                맑
                                                                                                                                                                                                          Sequence 13696, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                           1667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1547
                                                                                                                                                                                                                                                                                                                                                                                                                                                          897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          357
```

```
1007 TCCACATCTACCTGGACAAGGAAACAGGAAAAGCCCAAAGGCGATGCCACAGTGTCCTATG 1066
GACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCCAGAGATCCGGCCCTAC 1012
                                                                                                                               CTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAAGAGGAGGACGTGGAG 956
                                                                                                                                                                                                                                                            GCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCC 896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAAACCAGAACTTCGCCTGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCCTTCC 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCCACCCCGTGAGGGCAGAGGCCATCCACCACTCCGTGGAGGTCCAGGAGGCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCAAACTTAAAGTCTCCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTC 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGA
                                                                                          CTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAG 1726
                                                                                                                                                                                                                              GCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCC 1666
                                                                                                                                                                                                                                                                                                                                                              TCATGGATCGTGGTGCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                            TCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTG 836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAA 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGA 1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGC
                                                                                                                                                                                                                                                                                                                                                       1606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   776
```

FILE REFERENCE: CL001307

CURRENT PILING DATE: 2000-04-14

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-09-08

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOPTWARE: FASTSEQ for Windows Version 4.0

SEQ ID NO 13696

LENGTH: 6002

TYPE: DNA

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                     밁
                                                                                     δ
                                                                                                                        밁
                                                                                                                                                   δ
                                                                                                                                                                                          밁
                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; ORGANISM: Human US-09-949-016-13696
                   S
                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 962; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3410
                                                       3889
                                                                                                                        3830
                                                                                                                                                                                            3770
                                                                                                                                                                                                                                                            3710
                                                                                                                                                                                                                                                                                                                                3650
                                                                                                                                                                                                                                                                                                                                                                                                 3590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                199
                                                                                                                                                                                                                                                                                                                                                                                                                                   109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                       901
                                                                                                                                                          841
                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                              721
                       961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           μ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAACAGTGCAATTTATGTACAAGGATTAAATGACAATGTGACTCTAGATGATCTGGTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATGTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATGGATGAAGGACCAGATCTTGATCTAGGCCCCACCTGTAGATCCAGATGAAGACTCTGA
TGGAAAAATGGATAAAGGCGAGCGACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                            GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                 CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                          GGATCATGGTGGTCCCGGTGGAATGTTCAGAGGTGGCTGTGGTAGAGACAGAAGTGGCTT
                                                                                                                                                                                                                          GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                              GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT 780
                                                                                                                                                                                                                                                                                                                                                 TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ANGAGGACCCCAGGGTTCCCGAGGGAACACCTCTGGAGGAGGAAACGTCCAGCACCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCTGGGGGACCCATGGGTCGCATGGGAGGCCCGTGGAGGAGATAGAGGAGGCTTCCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCACCTACTGCCAAAGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACCTACCTGGACAAGGAAACAAGAAAGCCCAAAAGGTGATGCCACAGTGTCCTGTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGAGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                 GAGCAACAAGTGTAAGGCTCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTCCCACCCC
                                                                                                                                                                                                                                                                                                                                                                                                 TGGAGACAGGCAGTGTCCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCCCGTGAGGGCAGAGGGATGCCACCACCACTCTGCGGAGGTCCAGGAGGCCCCAGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTTAAAGTCTCTCTTGCTCGGAAGAGACCCTCCAGTGAACAGTATGCAGGGTGGTATGCC 3408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90.0%; ilarity 95.1%; Conservative
                                                        -GGACCTTTGATGTAACCAATGGGAGGAGGAAGAAGAGGACGTGAAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 911.2; DB 4;
Pred. No. 3.8e-228;
0; Mismatches 48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N
                     1012
                                                                                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                   3649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3049
                                                                                                                          3888
                                                                                                                                                                                            3829
                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                 3709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASS
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF
FILE REFERENCE: CLOO1307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR PILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NUMBER: 207012
SOFTMARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1954
LENGTH: 1783
TYPE: DNA
ORGANISM: Human
US-09-949-016-1954
                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 5
US-09-949-016-1954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
     S
                              밁
                                                                 8
                                                                                                          밁
                                                                                                                                   5
                                                                                                                                                                        밁
                                                                                                                                                                                                        S
                                                                                                                                                                                                                                            片
                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 909; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION: APPLICANT: VENTER,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1954, App
Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3948 TGGAAAAACGGATAAAGGCGAGCACTGTCAGGAGCGCAGAGATCAGCCCTAC 3999
                                                                                                                                                                                                                                                                                                                 1127
                                                                                                                                                                                                                                                                                                                                                                                   1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1007
                                                                                                                                                                            1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            827
                                                                                                                                                                                                                                                                                417
                                                                                                                                                                                                                                                                                                                                                 357
                                                                                                                                                                                                                                                                                                                                                                                                                   297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  57 GACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACT
       CAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTTGAAGGCTTCCTCCCGCCACCCTTTCCGC
                                                            GAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAAACCAGAACTTCGCCTGGAGAA 656
                                                                                                                                                                                                GAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGAGATAGAGGAGGCTTCC
                                                                                                                                                                                                                                                                     TGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACCTCCGTGGAGGTCCAGGAGGCCCAG
                                                                                                                                                                                                                                                                                                                                     GCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                   AAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGAGCAACCCATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACT
                                                                                                                              CTCCAAGAGGACCCCGGGGTTCCCGAGGGAAGCCCCTCTGGAGGAGGAAACGTCCAGCACC 596
                                                                                                                                                                              GAAGTCCTGGGGGACCCATGGGTCACATGGGAGGCCGTGGAGGAGATAGAGGAGGCCTCC
                                                                                                                                                                                                                                                TGCCACCCGTGAGGGCAGAGGGATGCCACCACCACTCTGCGGAGGTCCAGGAGGCCCAG
                                                                                                                                                                                                                                                                                                                 GCAAACTTAAAGTCTCTTGCTCGGAAGAGGCCTCCAGTGAACAGTATGCAGGGTGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCACATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAATGTGACTCTAGATGATCTGG
                                                                                                          CTCCAAGAGGACCCCAGGGTTCCCGAGGGAACACCTCTGGAGGAGGAAACGTCCAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              85.0%;
ilarity 95.1%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 860; DB 4;
Pred. No. 5.5e-215;
0; Mismatches 45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ASSOCIATED OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1783;
```

ب --

236

176

946

988 116

1186 416 1126

356

1066

296 1006

536

1246 476

1306

```
र्
                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                              ક
                                                                                                                                                                                                                                                                                                                                                              ş
 문
                           ঠ
                                                              밁
                                                                                      श्
                                                                                                                              밁
                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-621-976-13361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 6
US-09-621-976-13361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 19335
SOPTWARE: Patent.pm
SEQ ID NO 13361
LENGTH: 411
                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 349; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 13361, Ap
Patent No. 6639063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Jobert, S.
APPLICANT: Glordano, J.Y.
APPLICANT: Glordano, J.Y.
TITLE OF INVENTION: ESTS and Encoded Human
FILE REFERENCE: GENETION NUMBER: US/09/621,976
CURRENT FILING DATE: 2000-07-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1427
                                                                                                                              242
                                                                                                                                                                                               182
                                                                                                                                                                                                                                176
                                                                                                                                                                                                                                                                 122
                                                                                                                                                                                                                                                                                  116 TCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       717
 362
                               355
                                                              302
                                                                                               295
                                                                                                                                                              236
                                                                                                                                                                                                                                                                                                                               62
                                                                                                                                                                                                                                                                                                                                                56 GGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCAGATGAAGAC
                   GAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTA 404
                                                                                      TGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGG
                                                                                                                                                              ATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGA-TGCCACAGTGTCCTA
                                                                                                                                                                                                                    GCAGACTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATG
                                                                                                                                                                                                                                                                                                                                 GGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGAGTCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGGGGGGCCCCC-GGACCTTTGATGTAACCAATGGGAGGAAGAAGAAGAGGAGGACGTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCATGGATCATGGTGGTCCCGGTGGAATGTTCAGAGGTGGCTGTGGTAGAGACAGAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCC 776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGG
                                                                                                                                                                                              GCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATG
                                                                                                                                                                                                                                                               TCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACCTGGAAAAACGGATAAAGGCGAGCACTGTCAGGAGCGCAGAGATCAGCCCTAC 1780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAAGAGGAGGACGTGGAG 956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTTCCGTGGTGG-CTGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACAAGGTGGCC 1665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCC 896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCCGGGTGGTGATCATGGCAGAGGTGGCCCTGGTGGCATGTGGGGAAGAGGTGGCC 1546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTG 836
                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/09621976
                                                                                                                                                                                                                                                                                                                                                                                                               33.4%;
                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                               Score 338; DB 4; Length 411; Pred. No. 1.1e-78; 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Proteins.
411
                                                                                                                                                                                                                                                                                                                                                                                             <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1606
                                                                                               354
                                                                                                                                                              294
                                                                                                                                                                                                                              235
                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                              175
                                                                                                                                                                                                                                                                                                                               121
                                                              361
                                                                                                                              301
                                                                                                                                                                                               241
```

```
US-09-949-016-16786

Sequence 16786, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
RRIOR FILING DATE: 2000-0-08
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; ORGANISM: Human
US-09-949-016-16785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-949-016-16785
SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 16786
LENCTH: 35784
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 16785, Application US/09949016 Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 35784
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
les 268; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            33321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      33261 GACTGCTTTCGCCCTGCTATTCTCACCTTAGGTGGTGGTCGTCGACCAGAGGTGGCCCTGGT 33320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAAATGGATAA 975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATG 33500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCTGGACCTTTGATGGAACAGATG 931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGTGGCCGTGGTGGAGACAGAGGTGGCCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCATGCGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGCTCCCGGTGGAATGTTCAGA 33380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCATGCGGGGAGGAAGAGGTGGCCCTCATGGATCGTGGTGGTCCCCGGTGGAATGTTCAGA 811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT 751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAA 33544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 258.4; DB 4;
Pred. No. 5.2e-57;
0; Mismatches 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 35784;
                                                                                                                                                                                                                                                                                                                                        AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                          THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             33440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
```

```
FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR PILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR PILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOPTWARE: FABLSEQ for Windows Version 4.0

SEQ ID NO 176641

LENGTH: 601
                                                                                                                                                   밁
                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 9
US-09-949-016-176641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                       밁
                                                                                                         S
                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-949-016-16786
                               á
                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 176641, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 213; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 268;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Human
-09-949-016-176641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             33441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         33381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    33321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            33261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  692 GGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                   943
                                                                         121
                                                                                                               883
                                                                                                                                                                                         823
181
                                                                                                                                                                                                                                                                    763
                                                                                                                                                   61
                                                                                                                                                                                                                              _
                                                                                                                                                                                                                                                            AGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCATGCGGGGAGGAAGATGGTCGTCATGGATCGTGGTGGTAGTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACTGCTTTCGCCCTGCTATTCTCACCTTAGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAA 33544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAGGAAGAAGAGGACGTGGAGGACCTGGAAAAATGGATAA 975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTGGTGGAGGAGGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGATGGAACAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGCTCCCGGTGGAATGTTCAGA
                         AGGAGGACGTGGAGGACCTGGAAAAATGGATAA 975
                                                                                               AAGACGAGGTGGCCCTGGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAG 942
                                                                                                                                                   TGGAGACAGAGGTGGCTTCCGTGGTGGCCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGG 120
                                                                                                                                                                           TGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGG 882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGCCCCCTGGACCTTTGATGGAACAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC
AGGAGGACGTGGAGGACCTGGAAAAATGGATAA 213
                                                                           AAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAG
                                                                                                                                                                                                                              AGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                      21.0%; Score 213; DB 4; 1 llarity 100.0%; Pred. No. 6.4e-46; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 258.4; DB 4; Pred. No. 5.2e-57;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16;
                                                                                                                                                                                                                                                                                                                                              Length 601;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 35784;
                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     931
                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  751
                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 33500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           33440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    33380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33320
                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
```

```
GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

FITLE OF INVENTION: POLYMORPHISMS IN KNOWN G.

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR PILLING DATE: 2000-10-03

PRIOR PILLING DATE: 2000-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
US-09-949-016-176664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Sequence 176664, Application US/09949016 ; Patent No. 6812339
                                                                             ; NAME/KEY: misc_feature; OTHER INFORMATION: Incyte ID US-09-919-039-322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-919-039-322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-949-016-176664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 176664
                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 322, Application Patent No. 6727066
GENERAL INFORMATION:
                                                                                                                                                                          SOPTWARE: PERL Program
SEQ ID NO 322
LENGTH: 1939
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 213;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                        Query Match
                                                                                                                                                                                                                                                   APPLICANT: KASET, MATTHEW R.

TITLE OF INVENTION: GENES EXPRESSED IN TREATED HUMAN C3A LIVER CELL CULTURES FILE REFERENCE: PA-0035 US
CURRENT APPLICATION NUMBER: US/09/919,039
CURRENT FILING DATE: 2002-09-09
PRIOR APPLICATION NUMBER: 60/222,113
PRIOR FILING DATE: 2000-07-28
RUMBER OF SEQ ID NOS: 401
    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Human
                                                                                                                                   ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 601
  Local Similarity 55.
1es 477; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 823 TGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              763 AGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGAGGACGTGGAGGACCTGGAAAAATGGATAA 975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGAGGACGTGGAGGACCTGGAAAAATGGATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21.0%;
milarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application
                      16.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       US/09919039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 213; DB 4; Length 601; Pred. No. 6.4e-46;
                                                                                                 No. 6727066 478620.53
Score 164.8; DB 4;
Pred. No. 4.4e-33;
0; Mismatches 297;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KNOWN GENES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ASSOCIATED
OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                        Length 1939;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     882
      5
```

Indels

84;

Gaps

```
RESULT 12
US-09-949-016-176637
(Sequence 176637, Application US/09949016
) Patent No. 6812339
(GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: FOLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 १
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ई
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCATGGATCGTGGTGCCCCGGTGGAATGTTCAGAGGTGGCC---GTGGTGGAGACAGA 832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTGACTGGAAGTGTCCTAATCCCCACCTGTGAGAATATGAACTTCTCTTGGAGGAATGAA 1409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAG 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATGGAGGTGGTGGTGGTGGTGGCCGAGGAGGATTTCCCCAGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCTACCTGGACAAGGAAACAGGAAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGAC 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGGGACCAAGGATCACGTCATGACTCCGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTGGCTTTGGCCCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTGGCTTCCGTGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TACCGGGGCCGCGGGGACCGTGGAGGCTTCCGAGGGGCCCGGGGTGGTGGGGACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGGGGGGTAACTACGGGGATGATCGTCGTGGTGGCAGAGGAGGCTATGATCGAGGCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAA-----GAGGTGGC 775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCAACCAGTGTAAGGCCCCTAAACCAGATGGCCCAGGAGGGGGACCAGGTGGCTCTCAC 1469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         теснассаетстваевсского под поставления пост
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -----AGGTGGTGGTGGAGGACAGCAGCGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCA 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGT 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITAPAGICICCCTIGCTCGGAAGAAGCCCTCCAATGAACAGIATGCGGGGTGGTCTGCCA 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAA 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGTACACAGACAGGGAAACTGGCAAGCTGAAGGGAGAGGCAACGGTCTCTTTGATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACAACACCATCTTTGTGCAAGGCCTGGGTGAGAATGTTACAATTGAGTCTGTGGCTGAT 989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGAC 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGGGGTGGTGGCAATGGTCGTGGAGGCCGAGGGCGAGGAGGACCCCATGGGCCCGTGGAGGC 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCACCTTCAGCTAAAGCAGCTATTGACTGGTTTGATGGTAAAGAATTCTCCGGAAATCCT 1169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TACTTCAAGCAGATTGGTATTAATTAAGACAAACAAGAAAACGGGGACAGCCCATGATTAAT 1049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAAACTGGGCAACCCATGATCCAC 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATGTCTGGCAGAC 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGGCAGAGGTGGCATGGGCGGAAGTGACCGTGGTGGCTTCAATAAATTTGGTGGCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGACGCGTGGAATGGGCAGCCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----ACTCGCCGGGCAGACTTTAAT 1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
```

```
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.
; SEQ ID NO 176637
; LENGTH: 601
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-176637
                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: Fast-SEQ for Windows Version (1978) DATE: 100 176638
LENGTH: 601
 음 &
                                                         밁
                                                                                    S
                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
US-09-949-016-176638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                              S
                                                                                                                                                                                                                                       ; ORGANISM: Human
US-09-949-016-176638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
                                                                                                                                                                              Matches
                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 176638, Application US/09949016 Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
 145
                            321
                                                                                         261
                                                                                                                                                  201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         201 TTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAA
                                                                                                                                                                              137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    137;
                                                           85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         34
                          CCGTGGAATGGTTTGATGG
                                                                            TTGTTAAGATGAACAAGAGAACCTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGTCTAGATGAACAAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCGTGGAATGGTTTGATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTGTCTAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAA
                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13.4%;
                                                                                                                                                                                           13.4%;
98.6%;
                                                                                                                                                                                                                                                                                                                  Version
                                                                                                                                                                              ٥,
                                                                                                                                                                           Score 135.8; DB Pred. No. 1e-25; O; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
163
                             339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 135.8; DB Pred. No. 1e-25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                              N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
                                                                                                                                                                                                         Length 601;
                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                           144
                                                                                       320
                                                                                                                     84
                                                                                                                                                  260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         93
                                                                                                                                                                             0
```

RESULT

```
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR PELICATION NUMBER: 60/237,768
PRIOR PILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FRABESEQ for Windows Version 4.0
SEQ ID NO 176660
LENGTH: 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-949-016-176661
; Sequence 176661, Application US/09949016
; Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-949-016-176660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                              ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-176661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-176660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
                                                                               Query Match
Best Local Similarity
Matches 137; Conserv
                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 176661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 137; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 176660, A Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                               FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILLING DATE: 2000-04-14
                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                            LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        34
  25
                                                                                                                                                                                                                            601
TIGTCTAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAA 84
                         TTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAA 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGTGGAATGGTTTGATGG 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCGTGGAATGGTTTGATGG 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTGTCTAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGGCAAGGAAA 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                               13.4%; Score 135.8; DB 4; larity 98.6%; Pred. No. 1e-25; Conservative 0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Application US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13.4%; Score 135.8; DB 98.6%; Pred. No. 1e-25; tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 601;
                                                                                                                     Length 601;
                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>.</u>
                                                                               ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                               0
```

Search completed: February 20, 2005, 16:33:17 Job time: 177.828 secs

```
Regult
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OM nucleic -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
1010.4
1010.4
1010.4
1010.4
882.4
570
508.4
437.2
309
                                                                                                                                                                                                                                                           Score
                                                                                                                                                                                          1012
1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nucleic search, using sw model
                                                                                                                                                                        100.0
                                                                                                                                                                                                                                                           Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5384158 seqs, 2955248155 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-791-017A-1_COPY_1000_2011
1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     February 20, 2005, 11:50:34; Search time 532.573 Seconds (without alignments)
11231.185 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Published Applications NA:*

1: /cgn2_6/ptodata/2/pubpna/US07_PUBCOMB.seq:*

2: /cgn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq:*

3: /cgn2_6/ptodata/2/pubpna/US06_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    aggacgcggtggaatgggca.....agcgcagagatcggccctac 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gn2_6/ptodata/2/pubpna/US09B_PUBCOMB.seq:*
gn2_6/ptodata/2/pubpna/US09C_PUBCOMB.seq:*
gn2_6/ptodata/2/pubpna/US09NE_PUBCOMB.seq:*
gn2_6/ptodata/2/pubpna/US10A_PUBCOMB.seq:*
gn2_6/ptodata/2/pubpna/US10A_PUBCOMB.seq:*
gn2_6/ptodata/2/pubpna/US10D_PUBCOMB.seq:*
gn2_6/ptodata/2/pubpna/US10D_PUBCOMB.seq:*
gn2_6/ptodata/2/pubpna/US10E_PUBCOMB.seq:*
gn2_6/ptodata/2/pubpna/US10E_PUBCOMB.seq:*
gn2_6/ptodata/2/pubpna/US10E_PUBCOMB.seq:*
gn2_6/ptodata/2/pubpna/US10E_PUBCOMB.seq:*
gn2_6/ptodata/2/pubpna/US11_NEW_PUB.seq:*
gn2_6/ptodata/2/pubpna/US11_NEW_PUB.seq:*
gn2_6/ptodata/2/pubpna/US11_NEW_PUB.seq:*
                                                            1988
2176
2390
2390
2390
2390
2390
2273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6/ptodata/2/pubpna/PCTUS_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6/ptodata/2/pubpna/US08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ptodata/2/pubpna/US08_NEW_PUB.seq:*
ptodata/2/pubpna/US08_PUBCOMB.seq:*
                                                                                                                                                                                                                                                           몂
                                                                                                                                                                    18
                                                                                                                                               US-10-791-017A-1
US-09-880-107-3769
                                                                                                                                                                                          US-10-094-749-1074
US-09-822-830A-49
                                                                                                                                                                                                                                                           ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /2/pubpna/PCT_NEW_PUB.seq:*
/2/pubpna/US06_NEW_PUB.seq:*
/2/pubpna/US06_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                        SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           _NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PUBCOMB.seq:*
           Sequence 1074, Appl Sequence 49, Appl Sequence 1, Appli Sequence 1061, App Sequence 1081, App Sequence 717, App Sequence 941, App Sequence 941, App Sequence 9847, App Sequence 27650, A Sequence 2557, App
                                                                                                                                                                                                                                                       Description
```

ი	O	ი			ი							ი		ი	ი		ი										ი		ი	ი		
4 4 5	Δ	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
67.4 66	67.6	.7	71.6	72	74	76.2	6	78.2	9	9		82.2	٠	85	90	90.8	100.4	107	111.4	111.4	111.4	131.8	153.4	164.8	164.8	164.8	212.4	253	54	258.4	258.4	269.8
6.5		6.7		<u>.</u>	7.3 1	'n	7.5		٠			8.1	8 .u	8.4	8.9	9.0	9.9	10.6	11.0	11.0	11.0	13.0	15.2	16.3	16.3	16.3	21.0	25.0	25.1	25.5	25.5	26.7
458 597	1972	1972	748	410	114793	1449	1449	461	1397	1397	543	1401	1166	638	321	1352	460	386	450	450	450	483	468	1939	1824	1822	457	253	262	503	503	361
18 16	17	15	17	10	15										9	18	10	15	15	9	ø	10	10	10	17	18	18	9	16	16	9	9
US-10-437-963-3998 US-10-029-386-20241	L	-10-017-161	-10-424-599-4484	-09-918-	-10-148-806	US-10-425-115-42131	US-10-425-114-4694	US-10-029-386-20388	US-10-425-115-42134	US-10-425-114-31980	US-10-767-701-1751	US-10-437-963-89443	US-10-425-115-42135	US-10-198-846-7976	US-09-933-797-351	US-10-739-930-501	US-09-918-995-27342	US-10-101-510-297	US-10-144-649A-145	US-09-854-133-145	14	US-09-918-995-2865	-19	-32	'n	US-10-755-889-649	US-10-469-285-488	US-09-864-761-25438	10-029-386-181	S-10-029-386-44	-761-87	σ
10 10	e 1629,	e 1981,	e 44846,		3, Apr		4694,		42134,	31980,	1751,	89443,	4213	e 7976,	351, 7	501	273	297	e 145	145,	145, A	286		Sequence 322, App			e 488, P	25438	1816	ce 4463	8728,	Sequence 3851, Ap

ALIGNMENTS

```
RESULT 1
US-10-094-749-1074
; Sequence 1074, Application US/10094749
; Publication No. US20030219741A1
       APPLICANT: SEKI, NACHIKO
APPLICANT: YOSHIKAWA, TSUTOMU
APPLICANT: YOSHIKAWA, TSUTOMU
APPLICANT: OTSUKA, MOTOYUKI
APPLICANT: NACHHO, YASUHIKO
TITLE OF INVENTION: NOVEL FULL-LENGTH CDNA
FILE REFERENCE: 084335/0160
CURRENT APPLICATION NUMBER: US/10/094,749
CURRENT FILING DATE: 2002-03-12
PRIOR PILING DATE: 2002-01-24
PRIOR FILING DATE: 2002-01-24
PRIOR APPLICATION NUMBER: US/10/38381
PRIOR APPLICATION NUMBER: JP 2001-328381
PRIOR PILING DATE: 2001-09-14
NUMBER OF SEQ ID NOS: 3381
SCROTDWARE: PACENTIN Ver. 2.1
SEQ ID NO.1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                    APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                             PPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUGIYAMA, 10.
                                                                                                                                                                                                                                                                               OTSÚKA, KAORU
NAGAI, KEIICHI
IRIE, RYOTARO
TAMECHIKA, ICHIRO
                                                                                                                                                                                                                                                                                                                                                                                                                           OTSUKI, TETSUJI
WAKAMATSU, AI
SATO, HIROYUKI
                                                                                                                                                                                                                                                                                                                                                                        SHII, SHIZUKO
AMAMOTO, JUN-ICHI
SONO, YUUKO
                                                                                                                                                                                                                                                                                                                                                       YURI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAKAO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOMOYASU
```

99.8 99.8 87.2 56.3 50.2 30.5

10 US-09-960-706-1081 10 US-09-873-319-717 10 US-09-822-301A-410 14 US-10-198-846-9847 10 US-09-918-995-27690 10 US-09-918-995-9557

Sequence 669, App

```
망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; LENGTH: 1988
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-094-749-1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                              ð
                                                                                                               밁
                                                                                                                                        δ
                                                                                                                                                                       밁
                                                                                                                                                                                           S
                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          占
                       ş
                                                        밁
 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 1012; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1040
 1700
                                                                                                                1580
                                                                                                                                                                       1520
                                                                                                                                                                                                                                1460
                                                                                                                                                                                                                                                                                        1400
                                                                                                                                                                                                                                                                                                                                               1340
                                                                                                                                                                                                                                                                                                                                                                                                      1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1100
                                                        1640
                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                            901
                                                                                   841
                                                                                                                                           781
                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                              AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                      TCCTGGGGGACCCATGGGTCGCATGGGAGGGGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATCTACCTGGACAAGGAAACAGGAAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                   GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAGGAAGAAGAGGAGGACGTGGAGGACC
                                                                                CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                          GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                        GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                             GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                        TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                               AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                      TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAGGACC
                                                                                                                                                                                                     GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                        TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA 1459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 1012; DB 17; ilarity 100.0%; Pred. No. 1.5e-283; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . 1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
    1759
                                960
                                                                                                                  1639
                                                                                                                                              840
                                                                                                                                                                          1579
                                                                                                                                                                                                      780
                                                                                                                                                                                                                                 1519
                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                  1399
                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                       1339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              919
                                                           1699
                                                                                                                                                                                                                                                               720
                                                                                      900
```

```
APPLICANT: Genetics Institute, Inc.
APPLICANT: Wong, Gordon G.
APPLICANT: Wong, Gordon G.
APPLICANT: Clark, Hilary
APPLICANT: Fechtel, Kim
APPLICANT: Agostino, Michael J.
APPLICANT: Agostino, Michael J.
APPLICANT: Graham, James R.
APPLICANT: Gulukota, Kamalakar
APPLICANT: Gulukota, Kamalakar
APPLICANT: Graham, James R.
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS
FILE REFERENCE: GIN 6402
CURRENT APPLICATION NUMBER: US/09/822,830A
CURRENT FILING DATE: 2001-03-29
PRIOR APPLICATION UMBER: 60/195,604
PRIOR FILING DATE: 2000-04-06
NUMBER OF SEQ ID NOS: 631
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 49
LENGTH: 2176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 2
US-09-822-830A-49/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                          S
                                                               문
                                                                                      δ
                                                                                                                         밁
                                                                                                                                                              8
                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-822-830A-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 100.0%; Score 1012; DB 9; Best Local Similarity 100.0%; Pred. No. 1.5e-283; Matches 1012; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 49, Application US/09822830A
Patent No. US20020142952A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                            1025
                                                                                                                                                                                                                                                                                                                                                                                                              1085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                         965
                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                     361
                                                                                                                                                                                                                                        301
                                 481
                                                                                                    421
                                                                                                                                     845
725
                                                                  785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 AGGACGCGGTGGAATGGGCAGCGCTGGAGAGGGGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                       ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                          CCCACCCACTGCCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                                                                             CATCTACCTGGACAAGGAAACAGGAAAGGCCAAAGGCGATGCCACAGTGTCCTATGAAGA 300
                                                                                                                                                                                                                                                                                                                                                            CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                              CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                               CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                        CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                         CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                            ĊŢŢĊŢŢŢĀĀĠĊĀĠŢĠŢĠĠĠĠŢŢĠŢŢĀĀĠĀŢĠĀĀĊĀĀĠĀĠĀĀĊŢĠĠĠĊĀĀĊĊĊĀŢĠĀŢĊĊĀ
                 TCCTGGGGGGACCCATGGGTCGCATGGGAGGACGAGAGATAGAGGAGGAGGCTTCCCTCC
                                                                                                                                     ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 2176;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1146
                                                                                                                                                                                                                                                                                                                                                                                                                 1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                966
                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                    540
                                                                                                                                                                                                            846
                                                                                                                                                                                                                                                                             906
       999
                                                                      726
                                                                                                       480
                                                                                                                                         786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
```

```
APPLICANT: CHAPPEARM GmbH & CO. KG
TITLE OF INVENTION: Methods for Determining Hor
FILE REFERENCE: Pat 3684/11
CURRENT APPLICATION NUMBER: US/10/791,017A
CURRENT APPLICATION NUMBER: US/10/791,017A
CURRENT FILING DATE: 2004-03-02
NUMBER OF SEQ ID NOS: 7
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 1
LENGTH: 2390
TYPE: DNA
CRGANISM: Homo sapiens
FEATURE:
NAME/KEY: CDS
LOCATION: (44)...(2011)
OTHER INFORMATION: EWS
US-10-791-017A-1
                                                                                                                                    S
                    S
                                                   밁
                                                                            ঠ
                                                                                                              밁
                                                                                                                                                                         밁
                                                                                                                                                                                                     ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 3
US-10-791-017A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                  Query Match
Best Local Simi
Matches 1012;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Application US/10791017A Publication No. US20040197827A1 GENERAL INFORMATION:
                                                   1120
                                                                                                               1060
                                                                                                                                                                          1000
                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 365
                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                            13
                                                                                                                                                                                         1 AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                    Similarity
                                                                                                                              CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
 CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                   CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                              CATGGATGAAGGACCAGATCTTGATCTAGGCCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAGGACC 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGAAGACGAGGTGGCCCTGG 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACCTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                    100.0%;
                                                                                                                                                                                                                                     <u>.</u>
                                                                                                                                                                                                                                  Score 1012; DB 18;
Pred. No. 1.6e-283;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hormonal Effects
                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of Substances
                                                                                                                                                                                                                                    0
                    240
                                                                                                              1119
                                                                                                                                                                         1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           660
                                                   1179
                                                                               180
                                                                                                                                          120
                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        606
                                                                                                                                                                                                                                    0
                                                                                                                                                                                                  RESULT 4
US-09-800-107-3769
; Sequence 3769, Application US/09880107
; Patent No. US20020142981A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
APPLICANT: Gene Logic, Inc.
TITLE OF INVENTION: Gene Expression Profiles in FILE REFERENCE: 44921-5028-WO
CURRENT APPLICATION UMBER: US/09/880,107
CURRENT FILING DATE: 2001-06-14
PRIOR APPLICATION NUMBER: US 60/211,379
PRIOR FILING DATE: 2000-06-14
PRIOR PILING DATE: 2000-014
PRIOR PILING DATE: 2000-01-02
PRIOR PILING DATE: 2000-10-02
NUMBER OF SEQ ID NOS: 3950
                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                       APPLICANT: Horne, Darci T.
APPLICANT: Vockley, Joseph
APPLICANT: Scherf, Uwe
APPLICANT: Gene Logic, Inc.
                                                                                                                                                                                                                                                                                                               1960
                                                                                                                                                                                                                                                                                                                                                                                                                                   1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1240
                                                                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1180 CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA 1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                             TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                             GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACC 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTTGATGGGAAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                     CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGATCGTGGTGCTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCCCGTGAGGGCAGAGGCATGCCACCACCACCTCCGTGGAGGTCCAGGAGGCCCCAGGAGG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAAGGCGATGCCAAGTGTCCTATGAAGA
                                                                                                                                                                         ۵.
                                                                                                                            in Liver
                                                                                                                              Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1479
                                                                                                                                                                                                                                                                                                                                                                                                                                   1899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
```

```
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                          닭
                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; OTHER INFORMATION: US-09-880-107-3769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOPTWARE: PatentIn Ver. 2
SEQ ID NO 3769
LENGTH: 2390
TYPE: DNA
ORGANISM: Homo Bapiens
묽
                       δ
                                                    밁
                                                                             S
                                                                                                           밁
                                                                                                                                    Ş
                                                                                                                                                                   밁
                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 1011; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1180
                                                                                                                                                                                                                                                                                                                                      1480
                                                                                                                                                                                                                                                                                                                                                                                           1420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1000
1840
                                                     1780
                                                                                                           1720
                                                                                                                                                                   1660
                                                                                                                                                                                                                          1600
                                                                                                                                                                                                                                                                                1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1060
                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                        721
                           841
                                                                                 781
                                                                                                                                                                                              661
                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ,..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGACGCGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATGGATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGA
                CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG 900
                                                                     GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                             GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCCGGGGAGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                     GTGCAACCAGTGTAAGGCCCCAAAGGCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                          TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACCTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                           ACCCCGTGAGGGCAGAGGCATGCCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATCTACCTGGACAAGGAAACAGGAAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                          GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT 1779
                                                                                                                                                                     GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                          TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                        AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                   TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                             ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
 CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genbank Accession
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1010.4; DB 9;
Pred. No. 4.6e-283;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŏ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US20020142981A1 X66899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                              1479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . 1359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1059
1899
                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                       1539
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                       1839
                                                                                  840
                                                                                                                                                                     1719
                                                                                                                                                                                                                           1659
                                                                                                                                                                                                                                                                                 1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
```

```
APPLICANT: Minger, William E.
APPLICANT: Minger, William E.
TITLE OF INVENTION: Identifying Drugs for and Diagnosis of Benign Profiles
FILE REFERENCE: 44921-5029-01US
FILE REPERENCE: 44921-5029-01US
CURRENT APPLICATION NUMBER: US/09/960,706
CURRENT FILING DATE: 2001-09-24
PRIOR APPLICATION NUMBER: 60/223,323
PRIOR FILING DATE: 2000-08-07
PRIOR PILING DATE: 2000-08-07
PRIOR FILING DATE: 2001-06-05
NUMBER OF SEQ ID NOS: 1124
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 1081
SEQ ID NO 1081
FEATURE: DNA
ORGANISM: Homo sapiens
FEATURE:
COTHER INFORMATION: Genbank Accession No. US20030134280A1 X66899
US-09-960-706-1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-960-706-1081
Sequence 1081, Application US/09960706
Publication No. US20030134280A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ᅜ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                   닭
                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                  8
                                                               밁
                                                                                                  δ
                                                                                                                                       밁
                                                                                                                                                                    S
                                                                                                                                                                                                            멼
                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 99.8%;
Best Local Similarity 99.9%;
Matches 1011; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1000
1480
                                                                   1420
                                                                                                                                                                                                                                                                                                                                                                                                                           1120
                                                                                                                                                                                                                                                                                  1240
                                481
                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAGGAGGACGTGGAGGACCCCTTGATGGACGACGACGTGGAGGACGTGGAACAGATGGGAAGAAGAAGAAGAGAAGAAGAAGAAGAAGAACCTTTGATGGAACAGAATGGGAAGAAGAAGAAGAAGAAGAAGAAGAAGAACC
                                                                                                                                                             ACTTAAAGTCTCCCTTGCTCCGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                       CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                       CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                           CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                           CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATGGATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGAATCGGCCCTAC
                       TCCTGGGGGACCCATGGGTCGCATGGGAGGAGGCCGTGGAGGAGATAGAGGAGGCCTTCCCTCC
                                                                   ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                               CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                     CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                  ACCCCGTGAGGGCAGGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1010.4; DB 10;
Pred. No. 4.6e-283;
0; Mismatches 1; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Benign Prostatic Hyperpla:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ç,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                     1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1059
                                                                                                                                            1419
                                                                                                                                                                                                                1359
                                                                                                                                                                                                                                                                                     1299
                                                                                                                                                                                                                                                                                                                                                                                                                           1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                       1479
                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1959
   1539
                                  540
                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

```
Sequence 717, Application US/09873319A

Publication No. US20030134324A1

GENERAL INFORMATION:

APPLICANT: Munger, William E.

APPLICANT: Kulkarni, Prakash

APPLICANT: Waga, Iwao

APPLICANT: Yamamoto, Jun

TITLE OF INVENTION: Identifying Drugs for and Diagnosis of Benign Prostatic

TITLE OF INVENTION: Hyperplasia Using Gene Expression Profiles

FILE REFERENCE: 44921-5029-US

CURRENT APPLICATION NUMBER: US/09/873,319A

CURRENT APPLICATION NUMBER: US/09/873,319A

CURRENT APPLICATION NUMBER: US/09/873,319A

CURRENT FILING DATE: 2001-06-05

EARLIER APPLICATION NUMBER: US/09/223,323

EARLIER APPLICATION NUMBER: US/09/223,323

EARLIER FILING DATE: 2000-08-07

NUMBER OF SEQ ID NOS: 755

SOFTWARE: Patentin Ver: 2.1

SEQ ID NO 717

LENGTH: 2390

TYPE: DNA

ORGANISM: Homo Bapiens

FEATURE: INSOPRATION: Genbark Accession No 152003013432481 V66808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 6
US-09-873-319-717
                                                  გ
                                                                                                                                                                                                                        ; OTHER INFORMATION: Genbank Accession No. US20030134324A1 X66899 US-09-873-319-717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                      유
                                                                                       밁
                                                                                                                   र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                      Query Match
Best Local Similarity
Matches 1011; Conserv
                      1060
                                                                                         1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                       61
                                                                                                                        μ
                                        CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA 120
                                                                                                          AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACC
                    CATGGATGAAGGACCAGATCTTGATCTAGGCCCCTCCTGTAGATCCAGATGAAGACTCTGA 1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGAMAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 2011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGGCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGATCGTGGTGCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                         Conservative
                                                                                                                                                                       99.8%;
                                                                                                                                                       0
                                                                                                                                                    Score 1010.4; DB 10
Pred. No. 4.6e-283;
0; Mismatches 1;
                                                                                                                                                                                     DB 10;
                                                                                                                                                       Indels
                                                                                                                                                                                     Length
                                                                                                                                                                                       2390;
                                                                                                                                                       ..
                                                                                       1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            660
                                                                                                                                                      0
RESULT 7

US-09-822-830A-410/c

; Sequence 410, Application US/09822830A
; Patent No. US20020142952A1
; GENERAL INFORMATION:
APPLICANT: Genetics Institute, Inc.
APPLICANT: Wong, Gordon G.
; APPLICANT: Clark, Hilary
APPLICANT: Pechtel, Kim
APPLICANT: Agostino, Michael J.
; APPLICANT: Howes, Steven H.
; APPLICANT: Resnick, Richard J.
                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                        1960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1120
                                                                                                                                                                                                                                                                                                          1900
                                                                                                                                                                                                                                                                                                                                                                           1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                        TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                         TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                          GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                          GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                           CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                              CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGTGGTGATCGTGGCAGAGGTGGCCCTCGTGGCATGCGGGGAAGAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGTGGTGATCGTGGCAGAGGTGGCCCTCGTGGCGATGCGGGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTTAMAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATCTACCTGGACAAGGAAACAGGAAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                             GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>AAGAGGACCCCGGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                        2011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . 1359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . 1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1179
                                                                                                                                                                                                                                                                                                          1959
                                                                                                                                                                                                                                                                                                                                                                           1899
                                                                                                                                                                                                                                                                                                                                                                                                                                             1839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1539
                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1599
```

```
APPLICANT: Graham, James R.

FITTE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS
FILE REFERENCE: GIN 6402
CURRENT APPLICATION NUMBER: US/09/822,830A
CURRENT FILING DATE: 2001-03-29
FRIOR APPLICATION NUMBER: 60/195,604
PRIOR FILING DATE: 2000-04-06
NUMBER OF SEQ ID NOS: 631
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 410
LENGTH: 2273
TYPE: DNA
ORGANISM: Homo sapiens
US-09-822-830A-410
                                                       Ś
                                                                                          밁
                                                                                                                      ঠ
                                                                                                                                                                                 Ś
                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
á
                             밁
                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                           뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 957;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                         661
                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                833
                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                            893
                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                          953
                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
781
                              642
                                                                                            653
                                                                                                                                                                                                                    773
                                                                                                                                                                                                                                                  541
                                                            721
                                                                                                                                                       713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATGGATGAAGGACCAGATCTTGATCTAGGCCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCCATGCGGGGAGGAAGAGGTGGCCTCAT 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGACGCGGTGGAATGG---GCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT 840
                                                                                                                         GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC 720
                                                                                                                                                                        TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                      AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                        AAGAGGACCCCGGGGTTCCCGAGGGAAACCCCTCTGGAGGAGGAAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                               ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                          ACCCCGTGAGGGCAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGTTGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                        TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                              TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gulukota, Kamalakar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               87.2%;
94.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 882.4; DB 9; Pred. No. 7.5e-246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1254
                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
                                                                                          643
                                                                                                                                                        654
                                                                                                                                                                                                                   714
                                                                                                                                                                                                                                                                                774
                                                                                                                                                                                                                                                                                                                                            834
                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                          894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
```

```
FILE REFERENCE: MRI-049
CURRENT APPLICATION NUMBER: US/10/198,846
CURRENT FILING DATE: 2002-07-18
PRIOR APPLICATION NUMBER: 60/306,220
PRIOR FILING DATE: 2001-07-18
PRIOR FILING DATE: 2001-07-18
NUMBER OF SEQ ID NOS: 14084
SOPTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 9847
LENGTH: 2299
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 8
US-10-198-846-9847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                 밁
                                                                                                  δ
                                                                                                                                                                  S
                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           吊
                         S
                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Homo sapiens
US-10-198-846-9847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 9847, Application US/1 Publication No. US20030099974A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Lillie, James
APPLICANT: Xu, Yongyao
APPLICANT: Wang, Youghen
APPLICANT: Wang, Youghen
APPLICANT: Steinmann, Kathleen
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS,
TITLE OF INVENTION: FOR IDENTIFICATION, ASSESSMENT,
TITLE OF INVENTION: THERAPY OF BREAST CANCER
                                                                                                                                                                                                                                                                                  1192
                                                                                                                                                                                                                                                                                                                                                                                                                         1072 GGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGAC
                                                                                                                                           1312
                                                                                                                                                                                                            1252
                                                                                                                                                                                                                                                                                                                                                      1132 TCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTG
                                                                                                                                                                                                                                                 236
                                                                                                                                                                                                                                                                                                                                                                                         116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           584
                                                                                                                                                                          296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tch 56.3%; S
al Similarity 100.0%;
570; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   56 GGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGAC
CTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCA
                                                                                                                                                                             GAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGG
                                                                                                                                                                                                                                 ATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGGCGATGCCCACAGTGTCCTAT
                                                                                                                                                                                                                                                                                    GCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATG
                                                                                                                                                                                                                                                                                                    GCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAAACTGGGCAACCCATG
                                                                                                                                                                                                                                                                                                                                                                            TCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGAGCGCAGAGATCGGCCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCA 475
                                                                                                      AGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGT
                                                                                                                                           GAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGG
                                                                                                                                                                                                            ATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US/10198846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 570; DB 14;
; Pred. No. 5.3e-155;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AND METHODS PREVENTION,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                        415
                                                                                                                                                                            355
                                                                                                                                                                                                              1311
                                                                                                                                                                                                                                                 295
                                                                                                                                                                                                                                                                                                                     235
                                                                                                                                                                                                                                                                                                                                                                                                                           1131
                                                                       1431
                                                                                                                                                                                                                                                                                    1251
                                                                                                                                                                                                                                                                                                                                                        1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                           1371
                                                                                                                                                                                                                                                                                                                                                                                          175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
```

よ

1432

```
Sequence 27690, Application US/09918995

Publication No. US20030073623A1

GENERAL INFORMATION:

APPLICANT: Hyseq, Inc.

ITITLE OP INVENTION: NOVEL NUCLEIC ACID SEQUENCES OBTITITLE OP INVENTION: FROM VARIOUS CDNA LIBRARIES

FILE REFERENCE: 2041-756

CURRENT APPLICATION NUMBER: US/09/918,995

CURRENT FILING DATE: 2001-07-30

PRIOR APPLICATION NUMBER: US/09/235,076

PRIOR FILING DATE: 1999-01-20

NUMBER OF SEQ ID NOS: 38054

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 27690

LENGTH: 550

TYPE: DNA

ORGANISM: Homo sapiens

FEATURE:

NAME/KEY: misc feature

LOCATION: (1) -- (550)

OTHER INFORMATION: n = A,T,C or G

US-09-918-995-27690
                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
     밁
                         र्
                                                                  밁
                                                                                          र्
                                                                                                                              밁
                                                                                                                                                           Ş
                                                                                                                                                                                                밁
                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 9
US-09-918-995-27690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 믕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 97.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1612
                                                                                                                                                                                                                                                                                                                                142
   442
                                755
                                                                382
                                                                                                 869
                                                                                                                               322
                                                                                                                                                                635
                                                                                                                                                                                                262
                                                                                                                                                                                                                                 575
                                                                                                                                                                                                                                                               202
                                                                                                                                                                                                                                                                                                515
                                                                                                                                                                                                                                                                                                                                                               455
                                                                                                                                                                                                                                                                                                                                                                                                                                395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 515;
                                                                                                                                                                                                                                                                                                                                                                                               82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22
                                                                                                                                                                                                                                                                                                                             CTTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATTGGGTCGCATGGGAGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                            ATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTC 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGGATAGAGGAGGCTTC 535
                    ATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGT
                                                                                   TTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGC
                                                                                                                                                    AACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGC
                                                                                                                                                                                                                 GGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCCGGGTTGTGGA
                                                                                                                                                                                                                                                                                    GGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGTTCCCCGAGGGAACCCCCTCT 574
                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGAGGCAATTCTTTCAGGGAGCAAACTTANAGTCTCCCTTGCTCGGAAGAAGCCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCCTCCA 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCAC 1611
                                                                                                                               AACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGC
                                                                                                                                                                                                GGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGA
                                                                                                                                                                                                                                                               GGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCT
                                                                                                                                                                                                                                                                                                                                                            CGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGACCCATGGGTCGCATGGGAGGCCGT 514
                                                                                                                                                                                                                                                                                                                                                                                               ATGAACAGTATGCGGTGTGGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGAGCTGGAGACTGGCAGTGTCCCAATCCG
                                                                TTCCTCCCCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGAGCTGGAGACTGGCAGTGTCCCAATCCG 1641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTCCAAGAGGACCCCGGGGTTCCCGAGGGGAACCCCCTCTGGAGGAAGAAACGTCCAGCAC 595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 508.4; DB 10; Length Pred. No. 2.6e-137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OBTAINED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                550;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                814
                                                                                                                              381
                                                                                                                                                                694
                                                                                                                                                                                                                             634
                                                                441
                                                                                               75,
                                                                                                                                                                                               321
                                                                                                                                                                                                                                                               261
                                                                                                                                                                                                                                                                                                                               201
                                                                                                                                                                                                                                                                                                                                                                                               141
                                                                                                                                                                                                                                                                                                                                                                                                                                                               81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                              RESULT 11
US-09-925-301-669
Sequence 669, Application US/09925301 Patent No. US20020052308A1 GENERAL INFORMATION:
```

```
LENGTH: 568
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (1)...(568)
; OTHER INFORMATION: n = A,T,C ou
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 10
US-09-918-995-9557
; Sequence 9557, Applic
; Publication No. US200
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Hyseq, Inc.
TITLE OF INVENTION: NOVEL NUCLEIC ACID SEQUE
TITLE OF INVENTION: FROM VARIOUS CDNA LIBRA
FILE REFERENCE: 20411-756
CURRENT FLILING DATE: 2001-07-30
PRIOR APPLICATION NUMBER: US/09/235,076
PRIOR APPLICATION NUMBER: US/09/235,076
PRIOR FILING DATE: 1999-01-20
NUMBER OF SEQ ID NOS: 38054
SOFTWARE: FASESEQ for Windows Version 3.0
SEQ ID NO 9557
                                                               밁
                                                                                       S
                                                                                                                       片
                                                                                                                                                           δ
                                                                                                                                                                                                  밁
                                                                                                                                                                                                                           ર્
                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 466;
510
                               421
                                                                451
                                                                                                361
                                                                                                                                 391
                                                                                                                                                                 301
                                                                                                                                                                                                    331
                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                     271
                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                       211
                                                                                                                                                                                                                                                                                                                                                       121 CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA 180
                                                                                                                                                                                                                                                                                                                                                                                                        151 CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       818
                                                                                                                                                                                                                                                                                                                                                                                                                             61 CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
ACCCCGTGAGGGCAGAGGCATGCCACCACCACTTTCGTGAGGTCCAGGAGGCCCCAGA 567
                 ACCCCGTGAGGGCAGAGGCATGCCACCACCACCACCGTGGAGGTCCAGGAGGCCCAGGA 478
                                                                                    ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC 420
                                                                                                                                 CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 450
                                                                                                                                                    CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                  CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA 300
                                                                                                                                                                                                                                                                 CTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                  AGGACGCGGTGGAATGG----GCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCCATGGAC
                                                                ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTTCCAATGAACAGTATGC-GGGTGGGCTGCC
                                                                                                                                                                                                  CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                    CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGAC 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Application US/09918995 US20030073623A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        43.2%;
97.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 437.2; DB 10;
Pred. No. 1.3e-116;
0; Mismatches 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCES
LIBRARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OBTAINED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           568;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                  390
                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                     330
                                                                                                                                                                                                                                                                                                                                     270
                                                                                                                                                                                                                                                                                                                                                                                                      210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         150
```

APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins
FILE REFERENCE: PA106

and Antibodies

```
CURRENT APPLICATION NUMBER: US/09/925,301
CURRENT PILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: PCT/US00/05882
PRIOR FILING DATE: 2000-03-08
PRIOR FILING DATE: 2000-03-08
PRIOR FILING DATE: 1999-03-12
PRIOR FILING DATE: 1999-03-12
NUMBER OF SEQ ID NOS: 1694
SEQ ID NO 669
LENGTH: 545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-925-301-669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCATION: (8)
OTHER INFORMATION: n equals
NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: misc feature
LOCATION: (453)
OTHER INFORMATION: n equals a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: misc feature
LOCATION: (337)
OTHER INFORMATION: n equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PEATURE: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: n equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: misc_feature
LOCATION: (58)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: misc_feature
LOCATION: (13)
OTHER INFORMATION: n equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCATION: (11)
OTHER INFORMATION: n equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
hes 396; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                            177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 467
                                                                                                                     405
                                                                                                                                                                                                  345
                                                                                                                                                                                                                                                                                                                                                                                                     647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            117
947
                                       465
                                                                           887
                                                                                                                                                            827
                                                                                                                                                                                                                                          767
                                                                                                                                                                                                                                                                                  285
                                                                                                                                                                                                                                                                                                                       707
                                                                                                                                                                                                                                                                                                                                                               225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAAC 586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAGGCCCAGGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGA 526
GGACGTGGAGGACCTGGAAAAA 968
                                                                     CGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAGAG 946
                                                                                                                                            GACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGA 886
                                                                                                                                                                                                                                                                                                             CCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGA 766
                                                                                                                                                                                                                                                                                                                                                               GATTTCTGCTGTGATGTAATTGTATGCAGGGGTTGTGGAAACCAGAACTTCGCCTGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTC 646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GNCGGCCGCTCTAGAACTAGTGGATCCCCCCGGGCTGCAGGAATTCGGCACGAGAGATAGA
                                                                                                                     GACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTNGTGGAGGAAGA
                                                                                                                                                                                                    AGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGA
                                                                                                                                                                                                                         AGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGA 826
                                                                                                                                                                                                                                                                                  ACAGAGTGCAACCAGTGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCNGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                       GCCTGGAGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCA 706
                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCCAGCACCGAGCTGGAGACTGGCAGTGTCCCAATCCTTCAATTGG------T 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAAC 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 309; DB 9; Length 545; Pred. No. 2.5e-79; J. Mismatches 93; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ဓ္
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                    404
                                                                                                                                                                                                                                                                                    344
                                                                                                                                                                                                                                                                                                                                                               284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           116
                                                                                                                     464
```

ð

밁 ð 밁 ঠ 밁 S 유 8 밁 ð 밁 ঠ 밁 S 밁

```
; TYPE: DNA
; ORGANISM: Bos taurus
; OTHER INFORMATION: Clone ID: 17-LIB3057-024-Q1-K1-E1
US-09-960-352-3851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                     RESULT 13
US-09-864-761-8728
                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                   맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-960-352-3851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 84.2
                                                                                                                                                               Sequence 8728, Application US/09864761 Patent No. US20020048763A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 3851
LENGTH: 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 3851, Application Patent No. US20020137139A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Warren, Wesley C.
APPLICANT: Tao, Nengbing
APPLICANT: Byatt, John C.
APPLICANT: Mathialagan, Negappan
APPLICANT: Mathialagan, Negappan
TITLE OF INVENTION: NUCLEIC ACID AND OTHER MOLECULES ASSOCIATED WITH LACTATION AND
FILE REFERENCE: 16511.006/37-21(10298)C
CURRENT APPLICATION NUMBER: US/09/960,352
CURRENT FILING DATE: 2001-09-24
NUMBER OF SEQ ID NOS: 15112
APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FILE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
FILE REFERENCE: Aeomica-X-1
CURRENT APPLICATION NUMBER: US/09/864,761
CURRENT FILING DATE: 2001-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  197 GGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     524
                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                           557
                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                  497
                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 GCTGCTGTCGAGTGGTTTGATGGGAAAGATTTCCAAGGGAGCAAACTTAAAGTGTCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 TAAACAGGAAAGCCCAAAGGCGATGCTACGGTGTCTTACGAAGACCCCAGCAACTGCCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCCATG 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCCGTGAGGGCAGA 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAGTCGTTAAGATGAACAAGAGGACTGTACAACCCATGATCCATATTTACTTGGACAGG
                                                                                                                                                                                                                                                                                                                                                                                                    GGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGT 556
                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGATGCCGCCGCCGCTCCGAGGAGGTCCAGGGGGCCCCAGGAGGTCCTGGAGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                  GGGCGCATGGGAGGCCGCGGAGGAGACAGAAGCTGCTTTCCACCAATGAGGGCCTTGCGG
                                                                                                                                                                                                                                                                                                                             557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US/09960352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 269.8; Pred. No. 5.5e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .5e-68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  57;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                              FOR
```

APPLICATION NUMBER:

APPLICATION NUMBER: US 60/180,312 FILING DATE: 2000-02-04 APPLICATION NUMBER: US 60/207,456 FILING DATE: 2000-05-26

2000-05-26 NUMBER: US 09/632,366

```
밁
                           ঠ
                                                                        밁
                                                                                                          S
                                                                                                                                                 밁
                                                                                                                                                                                 S
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                US-09-864-761-8728
                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 268; Conser
                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: MAP TO ACOOOO26.3
OTHER INFORMATION: EXPRESSED IN PLACEN
OTHER INFORMATION: EXPRESSED IN HEART,
OTHER INFORMATION: EXPRESSED IN HEART,
OTHER INFORMATION: EXPRESSED IN FETAL |
OTHER INFORMATION: EXPRESSED IN HELA,
OTHER INFORMATION: EXPRESSED IN HELA,
OTHER INFORMATION: EXPRESSED IN LUNG,
OTHER INFORMATION: EXPRESSED IN ADULT |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOPTWARE: Annomax Sequence Listing SEQ ID NO 8728 LENGTH: 503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       c riling DATE: 2000-09-21
APPLICATION NUMBER: US 09/608;408
FILING DATE: 2000-06-30
APPLICATION NUMBER: US 09/774,203
FILING DATE: 2001-01-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 2000-10-04
APPLICATION NUMBER: US 60/236,359
FILING DATE: 2000-09-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 2001-01-30
APPLICATION NUMBER: US 60/234,687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: PCT/US01/00670 FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: PCT/US01/00665 FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 2001-01-30
APPLICATION NUMBER: PCT/US01/00669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: PCT/US01/00666 FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: GB 24263.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: PCT/US01/00662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: PCT/US01/00663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/US01/00667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: PCT/US01/00664
340
                                   872
                                                                        280
                                                                                                              812
                                                                                                                                                   220
                                                                                                                                                                                       752
                                                                                                                                                                                                                            160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LING DATE:
                                                                                                                                                                                                                                                GGCTTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                         GGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGA 811
                                                                                                            GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC
                                                                                                                                                                                                                        GACTGCTTTCGCCCTGCTATTCTCACCTTAGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                   TTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATG
                                                                                                                                               GGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGCCCGGTGGAATGTTCAGA
                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER: PCT/US01/00661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER: PCT/US01/00668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000-08-03
                                                                                                                                                                                                                                                                                                                   25.5%;
                                                                                                                                                                                                                                                                                                                                                                                        ID IN BRAIN, SIGNAL = 1.9
ID IN HEART, SIGNAL = 2.3
ID IN FETAL LIVER, SIGNAL = 2.5
ID IN HELA, SIGNAL = 2.5
ID IN BONB MARROW, SIGNAL = 3.5
ID IN LUNG, SIGNAL = 5.8
ID IN ADULT LIVER, SIGNAL = 1.7
                                                                                                                                                                                                                                                                                                   <u>,</u>
                                                                                                                                                                                                                                                                                               Score 258.4; DB 9
Pred. No. 1.3e-64;
0; Mismatches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PLACENTA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL =
                                                                                                                                                                                                                                                                                                   16;
                                                                                                                                                                                                                                                                                                                                     9:
                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                         503;
                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                        219
                               931
                                                                                                          871
                                                                      339
                                                                                                                                               279
```

APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hancel, David K.
TITLE OF INVENTION: HUMAN GENOME-DERIVED SII
TITLE OF INVENTION: EXPRESSION ANALYSIS TW:
FILE REFERENCE: AEOMICA-X-2
CURRENT APPLICATION NUMBER: US/10/029,386
CURRENT FILING DATE: 2001-12-20

SINGLE

EXON

NUCLEIC ACID PROBES USEFUL

FOR

GENERAL INFORMATION:

Sequence 18163, Application US/10029386 Publication No. US20030194704A1

```
RESULT 15
US-10-029-386-18163/c
                                                                                                                    S
                                                                                                                                                               밁
                                                                                                                                                                                                 S
                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
US-10-029-386-4463/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 4463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 4463, I Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David R.
APPLICANT: Hanzel, David K.
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR TITLE OF INVENTION: EXPRESSION ANALYSIS TWO
FILE REFERENCE: AEOMICA-X-2
CURRENT APPLICATION NUMBER: US/10/029,386
CURRENT FILLING DATE: 2001-12-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 34288
SOFTWARE: Annomax Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: MAP TO CHR22.1
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2.3
OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 3.1
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 4.6
OTHER INFORMATION: SWISSPROT HIT: P18713, EVALUE 1.20e+00
OTHER INFORMATION: EST HUMAN HIT: BE897260.1, EVALUE 0.00e
OTHER INFORMATION: NT HIT: Y07848.1, EVALUE 0.00e+00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 503
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                104
                                                                                                                      932
                                                                                                                                                             164
                                                                                                                                                                                                                                            224
                                                                                                                                                                                                                                                                                    812
                                                                                                                                                                                                                                                                                                                           284
                                                                                                                                                                                                                                                                                                                                                                                                        344
                                                                                                                                                                                                                                                                                                                                                                 752
                                                                                                                                                                                                                                                                                                                                                                                                                                               692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25.5%;
Similarity 94.4%;
                                                                                                           GGAGGAAGAAGAGGAGGACGTGGAGGACCTTGGAAAAATGGATAA 975
                                                                                                                                                                                                                                          GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC
                                                                                                                                                                                                                                                                                                                         GGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGA
                                                                                                                                                                                                                                                                                                                                                              GGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCCCGGTGGAATGTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                    GACTGCTTTCGCCCTGCTATTCTCACCTTAGGTGGTGATCGTGGCAGAGGTGGCCCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGT 751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGGAAGAAGAGAGGACGTGGAGGACCTGGAAAAATGGATAA
                                                                                                                                                                                      TTTGGTGGAGGAGGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATG
                                                                                                                                                                                                                                                                                  GGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAAATGGATAA 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Application US/10029386
US20030194704A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Listing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 258.4; DB 16;
Pred. No. 1.3e-64;
0; Mismatches 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Engine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               vers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0.00e+00
                                                                              13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                              811
                                                                                                                                                                                                                                          165
                                                                                                                                                                                                                                                                                                                                                                                                        285
                                                                                                                                                                                                   931
                                                                                                                                                                                                                                                                                  871
                                                                                                                                                                                                                                                                                                                         225
```

```
OTHER INFORMATION: MAP TO CHR22.1
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2.3
OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 3.1
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 4.6
OTHER INFORMATION: SWISSPROT HIT: Q07050, EVALUE 2.00e+00
OTHER INFORMATION: NT HIT: X73003.1, EVALUE 0.00e+00
OTHER INFORMATION: EST_HUMAN HIT: BE897260.1, EVALUE 0.00e+00
Search completed: February 20, 2005, 22:47:58 Job time: 534.573 secs
                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                  片
                                                                                                                  S
                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                뭐
                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 34288
SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
SEQ ID NO 18163
LENGTH: 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 25.1%;
Best Local Similarity 98.8%;
Matches 256; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo sapiens
                                                                                                                                                                                                         897
                                                                                                                                                                                                                                                  142
                                                                                                                                                                                                                                                                                         837
                                                                                                                         957
                                                                                                                                                                                                                                                                                                                                  202
                                                                                                                                                                                                                                                                                                                                                                                                                                        717 CCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCC 776
                                                                                                                                                                                                                                                                                                                                                                           777
                                                                                                                                                                                                                                                                                                                                                                                                                  262 CCTTAGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAAGGAGAAGAGGTGGCC
                                                                                                                                                                82
                                                                                  22
                                                                                                     GACCTGGAAAAATGGATAA 975
                                                                                                                                                                                          CTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAAGAAGAGGACGTGGAG 956
                                                                                  GACCTGGAAAAATGGATAA 4
                                                                                                                                                           CTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAG
                                                                                                                                                                                                                                                  GCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCC
                                                                                                                                                                                                                                                                                         GCTTCCGTGGTGGCCGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCC 896
                                                                                                                                                                                                                                                                                                                                                                         TCATGGATCGTGGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTG 836
                                                                                                                                                                                                                                                                                                                                  TCATGGATCGTGGTGCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTG 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 254.2; DB 16; Length 262; Pred. No. 1.7e-63; 0; Mismatches 3; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                     203
                                                                                                                                                                  23
                                                                                                                                                                                                                                                  83
```

· -

, **6**,

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OM nucleic - nucleic search,
                                           0 0 0 0 0 0 0
                                                                                                                                                                                                                                                                                                                                                                            O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                          892
879.2
879.2
876.2
834.8
792.8
792.2
789.6
7789.4
770.6
769
754.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1012
1012
1012
1012
1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             996
996
966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                eeq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length: 0
length: 2000000000
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              February 20, 2005, 04:03:23; Search time 2989.19 Seconds (without alignments)
12886.762 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             guery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          34239544 segs, 19032134700 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 aggacgcggtggaatgggca....agcgcagagatcggccctac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-791-017A-1_COPY_1000_2011
1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              90 est 2:

90 est 4:

90 est 4:

90 est 4:

90 est 5:

90 est 6:

90 est 8:

90 est 9:

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gb_est1:*
20073
20073
2157
2157
22157
22159
22159
22159
22159
22159
22159
22107
22107
23107
23107
23107
23107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20107
20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GenCore version (c) 1993 - 2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                      σσσσσωσωωωωωω
                               CR604639
AKC11466
AKC119460
AKC34755
BX387336
AKC49743
BX408406
BX353312
BQ881305
BX449773
BX349773
BX349773
BX361313
BX361313
BX361313
BX365099
BX365099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CR593724
CR608666
CR619493
CR608375
CR602561
CR594868
CR610888
CR610888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5.1.6
Compugen Ltd.
                           CR593724 full-leng
CR6049666 full-leng
CR619495 full-leng
CR604952 full-leng
CR604952 full-leng
CR602561 full-leng
CR602561 full-leng
CR602547 full-leng
CR602547 full-leng
CR604639 full-leng
CR602547 ful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1012
```

BX449612 BX449612		BX449612	ហ	805	68.4	691.8	45	ი
CN162640 952042 MA		CN162640	7	843	68.6	694.6	44	ი
BE563744 601335129		BE563744	N	849	68.9	697	43	
BQ642355 AGENCOURT		BQ642355	v	951	69.1	699.6	42	
BG754333 602709891		BG754333	4.	726	69.3	701.4	41	
BY713354 BY713354		BY713354	σ	897	70.3	711.4	40	
BX346753 BX346753		BX346753	ர	928	70.4	712.4	39	ი
BE741903 601594075		BE741903	N	787	70.7	715.4	38	
BE562296 601344870		BE562296	N	901	71.4	722.6	37	
BX347606 BX347606		BX347606	5	920	72.2	730.2	36	ი
BX335119 BX335119		BX335119	Ç	1038	72.4	732.4	35	a
BG751179 602729679		BG751179	4	837	72.4	732.6	34	
BX382192 BX382192		BX382192	Ç.	964	72.5	733.8	ü	ი
BX333942 BX333942		BX333942	տ	925	72.9	737.4	32	ი
BX407825 BX407825		BX407825	v	1022	73.1	739.6	31	ი
BX387305 BX387305		BX387305	σı	933	73.2	740.6	30	ი
BX368129 BX368129		BX368129	v	792	73.2	741.2	29	a
BX428311 BX428311	_	BX428311	տ	1055	73.7	745.6	28	O
BX443495 BX443495		BX443495	տ	1062	74.0	748.6	27	ი
BX417171 BX417171		BX417171	υ	1064	74.2	751	26	ი
BG756215 602713525		BG756215	4	//8	/4.4	/53.4	7	

ALIGNMENTS

REFERENCE AUTHORS REFERENCE AUTHORS ACCESSION VERSION KEYWORDS SOURCE ORGANISM RESULT 1 CR593724 ORIGIN FEATURES COMMENT DEFINITION **LOCUS** TITLE JOURNAL TITLE JOURNAL REMARK Query Match Best Local Similarity Matches 1012; Conserv source 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a Direct Submission Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (B-mail : seqref@genoscope.cns.fr) Web : www.genoscope.cns.fr) Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 2073) Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished Faraday Avenue 2 (bases 1 to 2073) Homo sapiens (human) CR593724.1 GI:50474531 HTC; CNSLT_CDNA. CR593724 2073 bp mRNA linear full-length cDNA clone CS0DI011YO05 of Placenta Cot of Homo mapiens (human) . CR593724 2073 bp mRNA linear crtsparate crtspa division of Invitrogen Genoscope. Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation 1600 /organism="Homo sapiens" /mol_type="mRNA" /db_xref="taxon:9606" /clone="CSODIO11Y005" /tissue_type="Placenta Cot 25 /plasmid="pCMVSPORT_6" 1. .2073 ocation/Qualifiers 100.0%; Score 1012; DB 3 100.0%; Pred. No. 8e-241; tive 0; Mismatches 0 DB 3; 25-normalized" Length 2073; HTC 21-JUL-2004 25-normalized

ঠ

1 AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC

ç

Indels

0;

Gaps

Conservative

AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC

967 60 0

밁

806

```
RESULT 2
CR608666
LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1088
                                                                                                                                                                                                                                          1748
                                                                                                                                                                                                                                                                                                                                                          1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1208
                                                                                                                              1868
                                                                                                                                                                                   1808
                                                                                                                                                                                                                                                                                                  1688
                                                                                                                                                                                                                                                                                                                                                                                                               1568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     968
                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                      841
                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13
                                         CR608666 2083 bp 1
full-length cDNA clone CS0DG004YL23
              CR608666
                          Homo sapiens (human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                               CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                      GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAAGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                              CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                            GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                               GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                              TGGAAAAATGGATAAAGGCGGGGGCCCTAC
                                                                                                                                                                                     GGGGCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                             CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                   GGATCGTGGTGCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                     GGGTGGTGATCGTGGCAGAGGTGGCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCTGGGGGACCCATGGGTCGCATGGGAGGACGACGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCTGGGGGACCCATGGGTCGCATGGGAGGGGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                             TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
 GI:50489473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTCGTCTGCC
                                          mRNA
3 of B
                                          linear HTC 21-JUL-2004 cells (Ramos cell line) of
                                                                                                                              1919
                                                                                                                                                         1012
                                                                                                                                                                                                                                                                                                                                                           1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1027
                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                 1627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                      1867
                                                                                                                                                                                                                                             1807
                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                     1747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
REMARK
                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        무
                 밁
                                    S
                                                                      밁
                                                                                            S
                                                                                                                     닭
                                                                                                                                                   ঠ
                                                                                                                                                                                      밁
                                                                                                                                                                                                              á
                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 1012;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                              1148
                                                                                                                                                                                                                                                                                                     1088
                                                                                                                                                                                                                                                                                                                                                           1028
                                                                                                                              1268
                                                                                                                                                                                      1208
                                            481
                                                                                                  421
                                                                                                                                                          361
                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                 896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         908
                                                                                                                                                                                                                                                                                                                                                                                                                                             61
```

ð В S 멍

ð 밁 δ 밁

S В S . 유 δ 밁 δ

.6 문

밁

S 밁 S 밁 ક 밁 8 밁 S 용 δ

S 밁

```
HTC; CNSLT_cDNA.
Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 2083)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Web: www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five end enriched, double-strand cDNA was digested with Not I and into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Lik was normalized. Library was constructed by Life Technologies, division of Invitrogen.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
Submitted (20-JUL-2004) Genoscope - Centre
BP 191 91006 EVRY cedex - FRANCE (E-mail:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                               ACTTARAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC 420
                                                                                                                                                                                                                                                                                                                            CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                                                                                                                                                                                                           CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATGTGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACC
                                                                                                                                                                                                ACTTAMAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                               CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                 CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                              TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                           ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (bases 1 to 2083)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone="CSODG004YL23"
/tissue_type="B_cells (Ramos
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1. .2083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1012; DB 3;
Pred. No. 8.1e-241;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cell line)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       National de Sequencage : segref@genoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2083;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Five prime
and cloned
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1087
                                                                                                    1387
                                                                                                                                                     480
                                                                                                                                                                                                   1327
                                                                                                                                                                                                                                                                                                                                                                                                    1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                   540
                                                                                                                                                                                                                                                                                                       1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
```

```
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 4
CR604952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                             S
á
                                밁
                                                             8
                                                                                                밁
                                                                                                                          ঠ
                                                                                                                                                               밁
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 1012;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                  1177
                                1357
                                                                                                 1297
                                                                                                                                                                 1237
                                                                                                                                                                                                                                                                                                    1117
                                                                                                                                                                                                                                                                                                                                                                   1057
                                                                                                                                  301
                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                   121
                                                                 361
 421
                                                                                                                                                                                                                                                                                                                                                                                                                                     997
                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2157 bp mRNA linear HTC 21-JUL-2004 full-length cDNA clone CSODIO10YI12 of Placenta Cot 25-normalized of Homo sapiens (human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 2157)

Li,W.B., Gruber,C., Jessee,J. and Polayes,D.

Full-length cDNA libraries and normalization

Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Web: www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  division of Invitrogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Feng Liang Email: fliang@lifetech.com URL: http://fulllength.invitrogen.com/ InVitroGen Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CR604952.1 GI:50485759
HTC; CNSLT_CDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CR604952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                    CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                         CATCTACCTGGACAAGGAAACAGGAAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGA 300
                                                                                                                                                                                                                                                                                                                   CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA 180
                                                                                                                                                                                                                                                                                                                                                                   CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                  CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGACGCGGTGGAATGGGCAGCGCTGGAGAGAGCGAGGTGGCTTCAATAAGCCCTGGTGGACC 60
 ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCCAGGAGG 480
                                                 ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC 420
                                                                                                                                                                    CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                  CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA 1236
                                                                                                                                                                                                                                                            CTTCTTTAAGCAGTGTGGGGTTTTTAAGATGAACAAGAGAAACTGGGGCAACCCATGATCCA 240
                                                                                                                                                                                                                                                                                                    CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA 1176
                                  ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCC
                                                                                                   CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 2157)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
|llarity 100.0%;
|Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/clone="CSODIOLOYII2"
/tissue_type="Placenta Cot
/plasmid="pCWVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1012; DB 3;
Pred. No. 8.1e-241;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-normalized"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2157;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1600
                                                                                                 1356
                                                                                                                                                                                                                                                                                                                                                                     1116
                                                                                                                                                                                                                                                                                                                                                                                                                                     1056
                                                                                                                                                                    1296
                                  1416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
```

```
REFERENCE
AUTHORS
TITLE
JOURNAL
REMARK
                                                                                                                                                                                             REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 5
CR608375
                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                   FEATURES
                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2314 bp mRNA linear full-length cDNA clone CSODIO39YJ24 of Placenta Cot of Homo sapiens (human).
                                                                                                                                 Submitted (20-JUL-2004) Genoscope - Centre National de Sequencaç BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns - Web : www.genoscope.cns.fr)
                                   end enriched, double strand cDNA was digested with Not I and clinto the Not I and EcoR V sites of the pCMVSPORT 6 vector. Libra was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
                                                                                                                                                                                                                                                                     Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
                                                                                                                                                                                                                                                                                                                                                 Mammalia; Eutheria;
1 (bases 1 to 2314)
Li, W.B., Gruber, C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CR608375
                                                                                                                 1st strand cDNA was primed with a NotI-oligo(dT) primer.
                                                                                                                                                                                                                                                                                                         Unpublished
                                                                                                                                                                                                                                                                                                                               Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization
                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HTC; CNSLT cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CR608375.1 GI:50489182
                                                                                                                                                                                               Direct Submission
                                                                                                                                                                                                                                                       Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCGTGGTGGCCGGGGCATCGACCGAGGTGGCTTTGGTGGAGGAAGACGACGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGAGGACCCCGGGGTTTCCCGAGGGAACCCCCTCTGGAGGAAACGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCTGGGGGACCCATGGGTCGCATGGGAAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGTGGTGGCCGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                 (bases 1 to 2314)
Location/Qualifiers
1. .2314
                                                                                                                                                           de Sequencage :
enoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HTC 21-JUL-2004
25-normalized
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2008
                                                                             . Five prime
I and cloned
or. Library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
```

source

/organism="Homo sapiens"

```
밁
                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                            뭐
                                                                                                                                                                                                                                                                                                                                                                                              닭
                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
              Ş
                                        밁
                                                             δ
                                                                                      밁
                                                                                                           ક
                                                                                                                                         밁
                                                                                                                                                              δ
                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 1012; Conservative (
                                                                                       1777
                                                                                                                                         1717
                                                                                                                                                                                         1657
                                                                                                                                                                                                                                           1597
                                                                                                                                                                                                                                                                                            1537
                                                                                                                                                                                                                                                                                                                                               1477
                                                                                                                                                                                                                                                                                                                                                                                               1417
                                                                                                                                                                                                                                                                                                                                                                                                                                                1357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1297
                                       1837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1057
               901
                                                              841
                                                                                                                781
                                                                                                                                                                  721
                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ь
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA 120
GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAAGAACC
                                                    CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAAGAAGACGAAGATGGCCCTGG
                                                                                                    GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                      GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                         GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                            TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                            AGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                             TCCTGGGGGACCCATGGGTCGCATGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA 1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC 60
                                                                                       GGATCGTGGTGCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                         GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                         GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                           TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                  TCCTGGGGGACCCATGGGTCGCATGGGAGGACGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                       ACCCCGTGAGGGCAGAGGCATGCCACCACCCCCTCGTGGAGGTCCAGGAGGCCCAGGAGG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATCTACCTGGACAAGGAAACAGGAAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA 1176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC 1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol_type="mRNA"
/db xref="taxon:9606"
/db xref="taxon:9606"
/clone="CSODI039YJZ4"
/tissue type="Placenta Cot
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1012; DB 3;
Pred. No. 8.2e-241;
); Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-normalized"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                . 1356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
              960
                                       1896
                                                                                       1836
                                                                                                                                         1776
                                                                                                                                                                                         1716
                                                                                                                                                                                                                                          1656
                                                                                                                                                                                                                                                                                            1596
                                                                                                                                                                                                                                                                                                                                             1536
                                                                                                                                                                                                                                                                                                                                                                                              1476
                                                                                                                                                                                                                                                                                                                                                                                                                                                1416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1236
                                                              900
                                                                                                                840
                                                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
CR602561
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
ORGANISM
                                     밁
                                                         δ
                                                                                     밁
                                                                                                            Ś
                                                                                                                                      밁
                                                                                                                                                           S
                                                                                                                                                                                       片
                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                            र्
                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
REMARK
                                                                                                                                                                                                                                                                                            Best Local Sig
Matches 1000;
                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                       1122
                                                                                                                                        1062
                                                                                                                                                                                         1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1897
                                                                                                                                                                 121
                                                                                                                                                                                                                                          942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                   _
```

```
- B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
301 CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (B-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 2070)

Li,W.B., Gruber,C., Jessee,J. and Polayes,D.

Full-length cDNA libraries and normalization
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     full-length cDNA clone CSODI068YN23
of Homo sapiens (human).
CR602561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CR602561.1 GI:50483368
HTC; CNSLT cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genoscope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Faraday Avenue
                                                                                                            CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                     CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                          CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                              CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                              CATGGATGAAGGACCAGATCTTGATCTAGGCCCCACCTGTAGATCCAGATGAAGACTCTGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGGCGCAGAGATCGGCCCTAC
                                                                                 CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCAACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                         CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGAGGACGCGGTGGAATGGGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC 1956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (bases 1 to 2070)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98.4%;
nilarity 98.8%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODIO68YN23"
/tissue_type="Placenta_Cot_2
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
1. .2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 996; DB 3;
Pred. No. 7.8e-237;
0; Mismatches 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mRNA linear HTC 21-JUL-2004
3 of Placenta Cot 25-normalized
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-normalized
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 2070;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1600
                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                1061
                                                                                 1241
                                                                                                                                                                                     1181
                                                                                                                                                                                                                                                                                         1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                             360
                                                                                                                                  300
                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
```

```
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                             RESULT 7
CR594868
                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                           SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                     LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
    COMMENT
                                                                              REFERENCE
                                        AUTHORS
TITLE
JOURNAL
                                                                                                                  TITLE
JOURNAL
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                  1842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1242
                                                                                                                                                                                                                                                                                                                                                                   1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1542
                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                              Homo sapiens
Eurkaryota; Metazoa; Chordata; Craniata; Verto
Mammalia; Eucheria; Primates; Catarrhini; Hor
1 (bases 1 to 2093)
Li, W.B., Gruber, C., Jessee, J. and Polayes, D.
Full-length cDNA libraries and normalization
Unpublished
Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage BP 191 91006 EVRY cedex - FRANCE (E-mail: seqref@genoscope.cns.fr - Web: www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five primer.
                                                                                                                                                                                                                                                                     CR594868
full-length cDNA clone
of Homo sapiens (human)
                                                                  Genoscope.
                                                                             Faraday Avenue
2 (bases 1 to 2093)
                                                                                                     Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation
                                                                                                                                                                                                                                    CR594868
CR594868.1 GI:50475675
HTC; CNSLT_CDNA.
                                                     Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                               TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGAATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAGAAGAAGAAGAGGAGGACGTGGAGGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGCAACCAGTGTAAGGCCCCAAAGGCTGAAGGCTTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAAAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCTGGGGGACCCATGGGTCGCATGGGAGGACGCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCCCGTGAGGGCAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                   TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                    GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGTGGTGGCCGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGATCGTGGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAAGAGGAGGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                     sapiens (human)
                                                                                                                                                                                                                                                                                     2093 bp 1
CS0DI064YE15
                                                                                                                                                                                 Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                     mRNA linear
5 of Placenta Cot
                                                                                                                                                                                                Euteleostomi;
                                                                                                                                                                                                                                                                                     HTC 21-JUL-2004
25-normalized
                                                                                                                                                                                                                                                                                                                                                                   1953
                                                                                                                                                                                                                                                                                                                                                                                          1012
                                                                                                        1600
  prime
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1361
                                                                                                                                                                                                                                                                                                                                                                                                                    1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1301
                                                                                                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                               Ś
                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                  용
                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
    밁
                    δ
                                                    멂
                                                                        5
                                                                                                        밁
                                                                                                                         Ś
                                                                                                                                                        밁
                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 1000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1122
                                                                                                                                                                                                                                                                                                                                                                   1302
                                                                                                                                                                                                                                                                                                                                                                                                                    1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1062
                                                                                                                                                          1542
                                                                                                                                                                                                             1482
                                                                                                                                                                                                                                                               1422
                                                                                                                                                                                                                                                                                                                1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1002
                                                                                                        1602
                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                            781
                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \vdash
     GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
```

```
end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
Location/Qualifiers
                                                                                                                                                    cloned
```

Query Match Best Local Similarity GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACCTTCGCCCTGGAGAACAGA ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGA CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA CTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA AGGAGGACGCGGTGGAATGGGCGCGCGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT GGGTGGTGATCGTGGCAGAGGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCC Conservative /organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/clone="CSODIG64YE15"
/tissue_type="Placenta Cot 2
/plasmid="pCMVSPORT_6" .2093 98.4**%**; 98.8**%**; <u>.</u> Score Pred. Mismatches 996; DB 3; No. 7.8e-237; 25-normalized" 12; Length 2093; 0 Gaps 480 1121 180 1061 1721 1361 1301 360 1241 1181 120 1001 60 1661 1601 1541 1481 1421 420 240 720 660 600 540 840 780 0

```
RESULT 8
CR610888
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
KEYWORDS
                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOURCE
ORGANISM
   밁
                       S
                                                             밁
                                                                                      S
                                                                                                                       밁
                                                                                                                                                                                   맑
                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
REMARK
                                                                                                                                                                                                                                             Best Local Sir
Matches 1000;
                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
   1122
                                                             1062
                                                                                                                         1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1842
                            181
                                                                                         121
                                                                                                                                                                                   942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CR610888
full-length cDNA clone C
(human)
CR610888
CR610888.1 GI:50491695
HTC; CNSLT_CDNA.
                                                                                                                                                                                                                 ۳
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission

Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage :

BP 191 91006 EVRY cedex - FRANCE (B-mail : seqref@genoscope.cns.fr

Web : www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and Cloned into the Not I and Ecor V sites of the pcmvSpCRT 6 vector. Library was normalized. Library was constructed by Life Technologies, a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Full-length cDNA libraries and normalization Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                             division
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
1 (Dases 1 to 2126)
Li,W.B., Gruber,C., Jessee,J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                  AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCCTGGTGGACC
                 CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                              CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                       CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                     CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                AGGAGGACGCGGTGGAATGGGCGCTGGAGAGCTGGCTTCAATAAGCCTTGGTGGACC
    CITC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAGGACC 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTTGGTGGAGGAAGACGAAGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (bases 1 to 2126)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CNSLT_cDNA.
sapiens (human)
                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                               /mol_type="mRNA"
/db xref="taxon:9606"
/clone="CSODF037Y107"
/tissue_type="Fetal bxain"
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                           of Invitrogen
                                                                                                                                                                                                                                                                                                                                                                                            organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                             ocation/Qualifiers
                                                                                                                                                                                                                                                      98.48;
                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                        Score 996; DB 3;
Pred. No. 7.8e-237;
0; Mismatches 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2126 bp n
CS0DF037YI07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mRNA linear HTC 21-JUL-2004 of Fetal brain of Homo sapiens
                                                                                                                                                                                                                                           12;
                                                                                                                                                                                                                                                                      Length 2126;
                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1012
                                                          1121
                                                                                        180
                                                                                                                     1061
                                                                                                                                                                                 1001
                            240
                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                          0
                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                            REFERENCE
AUTHORS
TITLE
JOURNAL
REMARK
                                                                                                                                                                                                                                           RESULT 9
CR625247
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           멹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뭐
                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                    1902
                                                                                                                                                                                                                                                                                                                                                                              1842
                                                                                                                                                                                                                                                                                                                                                                                                                                          1782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 2159)

Li,W.B., Gruber,C., Jessee,J. and Polayes,D.

Full-length cDNA libraries and normalization
Unpublished
                                                                                                                                                                                           (human).
CR625247
            Contact : Feng Liang Email : fliang@lifetech
http://fulllength.invitrogen.com/ InVitroGen
                                                                                                                                                              CR625247.1 GI:50506054
HTC; CNSLT_cDNA.
                                                                                                                                       Homo
                                                                                                                                                                                                                         CR625247
full-length cDNA clone
Faraday Avenue
                                                                                                                                                                                                                                                                                                                                     TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                            GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                  TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1953
                                                                                                                                                                                                                                                                                                                                                                              GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                          CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGATCGTGGTGCTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCCCGTGAGGGCAGAGGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATCTACCTGGACAAGGAAACAGGAAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                  sapiens (human)
sapiens
                                                                                                                                                                                                                          2159 bp mRNA
CS0DE005YF11 of
                                                                                                                                                                                                                            Placenta
                                                                                                                                                                                                                          linear
centa of
              Corporation 1600
                            .com
                                                                                                                                                                                                                          HTC
Homo
                                                                                                                                                                                                                          21-JUL-2004
sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1721
                                                                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                          1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
```

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                            문
                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
밁
                         S
                                                            밁
                                                                                         δ
                                                                                                                                                                                            밁
                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
1659
                                                                                                                                                                                              1479
                                                                                                                                                                                                                                                          1419
                                                                                                                                                                                                                                                                                                                          1359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1059
                                                              1599
                                                                                                                              1539
                                                                                                                                                                                                                                                                                                                                                                                          1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1239
                                                                                                                                                            541
                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1000;
                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    999
                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage :
BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr)
- Web : www.genoscope.cns.fr)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genoscope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATCTACCTGGACAAGGAAACAGGAAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGAGGACGCGGTGGAATGGGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCCGCCCCC 720
                                                                                                                                                                                                                                                                                                                                                                                                                          CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAAGGCGATGCCAAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA 240
GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC
                                                                                  TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA 660
                                                                                                                               AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                              ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCCAGGAGG
                                                                                                                                                                                                                                                                                        ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG 480
                                                                                                                                                                                                                                                                                                                                                          ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/clone="CSODEOOSYF11"
/tissue_type="Placenta"
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 996; DB 3;
Pred. No. 7.8e-237;
0; Mismatches 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 2159;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                            1418
                                                                                                                                                                                                                                                                                                                                                                                            1358
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . 1238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . 1178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1058
                                                                                                                                                                                                                                                            1478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
1718
                                                               1658
                                                                                                                               1598
                                                                                                                                                              600
                                                                                                                                                                                               1538
                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
```

```
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 10
CR604639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
유
                        Ş
                                                                    밁
                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
JOURNAL
                                                                                                                                                             Query Match
Best Local :
                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1779
 1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                      972
                                                                                                                                          96;
                                 61
                                                                                                                                                                                                                                                                                                                                                                                       Submitted (20-JUL-2004) Genoscope - Centre National de Sequen BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.c - Web : www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five end enriched, double-strand cDNA was digested with Not I and into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Lil was normalized. Library was constructed by Life Technologies, division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2236 bp mRNA linear HTC 21-JUL-2004 full-length cDNA clone CSODJO13YNO8 of T cells (Jurkat cell line) Cot 10-normalized of Homo sapiens (human) . CR604639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 2236)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CR604639.1 GI:50485446
HTC; CNSLT_CDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                        CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGATCGTGGTGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCAT
 CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                      AGGAGGACGCGGTGGAATGGGCGCTGGAGAGCTGGCTTCAATAAGCCTGGTGGACC
                                                                                                     AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (bases 1 to 2236)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             day Avenue
                                                                                                                                              Conservative
                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODJOI3YNO8"
/tissue_type="T_cells (Jurkat colon=normalized"
                                                                                                                                                                                                                                                                                                                                                                            of Invitrogen.
Location/Qualifiers
                                                                                                                                                                                                                                 /plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                           1. .2236
                                                                                                                                                             88.1%;
98.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ICCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACC
                                                                                                                                          Score 892; DB 3; I
Pred. No. 6.2e-211;
0; Mismatches 12;
                                                                                                                                                                                                                                                                        cell line)
                                                                                                                                                                             Length 2236;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        National de Sequencage : segref@genoscope.cns.fr
                                                                                                                                              Indels
                                                                                                                                                                                                                                                                        င္ပ
                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Five prime and cloned
                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                   Library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   195B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
     1091
                                      120
                                                                         1031
                                                                                                           60
```

```
REFERENCE
AUTHORS
                                                                                                                             ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                      RESULT 11
AK014366
                                                                                       SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                           1872
                                                                                                                                                                                                                                                                                                                                                                                                                                          1812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1512
                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                 AK014366
AK014366.1 GI:12852167
                                                                                                                                                                                                                                  Mue
        Carninci, P.
                                                                                                                                                                                                                                                     AK014366
                                              Mammalia; Eutheria;
                                                                Eukaryota; Metazoa;
                                                                                                                                                                                                          Mus musculus 17 days embryo head cDNA,
library, clone:3300002D11 product:Ewing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGTGGTGATCGTGGCAGAGGTGGCCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGAGGACCCCGGGGTTCCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                eeeeccc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCCCGTGAGGGCAGAGGCATGCCACCACCACCTCCGTGGAGGTCCAGGAGGCCCAGGAGG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATGATCTGGCAGA 180
                                                                                                                                                                                                                                                                                                                                                         GGGCCCC 1879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ccereereecceeecareeacceaegreecrrreereeaegaaegaaegaegaegreeccree
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGATCGTGGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCCCGTGAGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTCTTTAAGCAGTGTGGGGGTTGTTAAGATGAACAAGAGAACTGGGGCAACCCATGATCCA 240
                                                                                                  musculus (house mouse)
                                                                                                                                                                                         sequence.
                                                                                                                                                                                                                                                                                                                                                                                                  908
      and Hayashizaki,Y
                                            Chordata; Rodentia;
                                                                                                                                                                                                                                                     1379 bp
                                          Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                     mRNA linear ....
DNA, RIKEN full-length enriched
Ewing sarcoma homolog, full
                                                                                                                                                                                                                                                     HTC 03-APR-2004
                                              Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . 1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1271
                                                                                                                                                                                                                                                                                                                                                                                                                                        1871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
MEDLINE
PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                         FEATURES
                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Group Phase I & II Team.

Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs

Nature 420, 563-573 (2002)

Source of 60,70 full-length cDNAs

Nature 420, 563-573 (2002)

Adachi,J., Aizawa,K., Akahira,S., Akimura,T., Arai,A., Aono,H., Arakawa,T., Bono,H., Carninci,P., Fukuda,S., Fukunishi,Y., Arakawa,T., Bono,H., Carninci,P., Fukuda,S., Fukunishi,Y., Iramoto,K., Furuno,M., Hanagaki,T., Hara,A., Hayatsu,N., Hiramoto,K., Furuno,M., Hanagaki,T., Mata,H., Hayatsu,N., Hiramoto,K., Furuno,M., Hanagaki,T., Kawai,J., Kojima,Y., Konno,H., Kouda,M., Kasukawa,T., Kato,H., Kawai,J., Kojima,Y., Konno,H., Kouda,M., Koya,S., Kurihara,C., Matsuyama,T., Miyazaki,A., Nishi,K., Nomura,K., Numazaki,R., Ohno,M., Okazaki,Y., Okido,T., Owa,C., Saito,H., Saito,R., Sakai,C., Sakai,K., Sano,H., Sasaki,D., Saito,H., Saito,R., Sakai,C., Sakai,K., Sano,H., Sasaki,D., Shibata,K., Shibata,Y., Shibata,Y., Shibata,Y., Shibata,Y., Shibata,Y., Shibata,Y., Tagami,M., Tagawa,A., Shiraki,T., Sogabe,Y., Spima,Y., Tyamamura,T., Yasunishi,A., Yoshida,K., Yoshito,M., Muramatsu,M. and Hayashizaki,Y.
                                                         Direct Submission

Submitted (10-UTL-2000) Yoshihide Hayashizaki, The Institute c
Submitted (10-UTL-2000) Yoshihide Hayashizaki, The Institute c
Physical and Chemical Research (RIKEN), Laboratory for Genome
Exploration Research Group, RIKEN Genomic Sciences Center (GSC
RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yoko
RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yoko
Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.jp,
URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222,
Fax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P. Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Yoneda, Y., Inoue, K., Togawa, Y., Izawa, M., Ohara, B., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y. RIKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Meth. En: 99279253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Carninci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K., Itoh, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                            Please visit our web site (http://genome.gsc.riken.jp/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             High-efficiency full-length cDNA cloning Meth. Enzymol. 303, 19-44 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The FANTOM Consortium and the RIKEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Functional annotation of a full-length mouse cDNA collection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The RIKEN Genome Exploration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genome Res.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FANTOM Consortium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20530913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20499374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1042159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1076861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .0349636
                                            SOLR.
Location/Qualifiers
1. .1379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                685-690 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Research Group
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genome Exploration Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ħ
                                                                                                                                                                                                                                                                                                                                                                                                Yokohama
                                                                                                                                                                                                                                                                                                                                                                                                                 (GSC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                         얁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  genes
```

S

```
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                polyA_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        polyA_signal
                                                                                                                                                                      421
                                                                                                                                                                                                                 432
                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                      372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     132
                                          552
                                                                                     481
                                                                                                                                492
                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                         312
                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           927;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   щ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACCAGATCTTGATCTAGGCCTTCCTATAGATCCCGATGAAGACTCTGACAACAGTGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACTGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCCTGGTGGACCCCATGGATGAAG
                             GGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAGAACGTCCAGCACCCGAGCTGGAGACTGGC 611
                                                                                                                CCATGGGTCGCATGGGAGGCCGTGGAGGAGGAGATAGAGGAGGCTTCCCCTCCAAGAGGACCCC
                                                                                                                                                                          GCAGGGGGATGCCACCACCACTTCGTGGAGGTCCTGGTGGCCCAGGAGGCCCTGGAGGAC
                                                                                                                                                                                                   GCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCCAGGAGGTCCTGGGGGAC
                                                                                                                                                                                                                                                              CCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCCGTGAGG
                                                                                                                                                                                                                                                                                                                                                                              CCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAAGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGC 191
  GAGGCTCCAGAGGAAACCCCTCTGGAGGAGGAAATGTCCAGCACCGAGCTGGAGACTGGC
                                                                                                                                                                                                                                                                                                                                               CAMAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGAAGCAAACTTAAAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                      ATAAGGAGACAGGAAAGCCTAAAGGGGGACGCCACAGTGTCCTATGAAGATCCACCAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTATGTGCAAGGATTAAATGACAATGTGACTCTGGATGATCTGGCAGACTTCTTTAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        87.2%;
ilarity 92.6%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /proteIn_id="BAB29301.1"
/db_xref="G1:12852168"
/db_xref="G1:12852168"
/tashelation="Losagergefenkpagpmlegppl.DLg1.pldpdedsDNSA1YVQg
/tashelation="Losagergefenkpagpmihiyldketgkpkgdatvsyedpptaka
LNDNVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKA
AVEWFDGKDFQGSKLKVSLARKKPPMNSMCGWPFREGRGMPPLRGGPGGPGGPGGP
MGRWGGRGGDNRGGFPRGSRGNPSGGGNVGHRAGDWQCNNFGCGNNFRGFRFF
MGRWGGRGGDNRGFFFPPPPGGDRGRGGPGGMRGGRGGIMDRGGPGGMFRGGRGGDRGGF
QCKAPKPEGFIPPPPPPGGDRGRGGPGGMRGGRGGIMDRGGPGGMFRGGRGGDRGGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Mus musculus"
/mol type="mRNA"
/strain="C57BL/6J"
/strain="C57BL/6J"
/db_xref="FANTOM_DB:3300002D11"
/db_xref="taxon.10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="putative"
1379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RGGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /dev_stage="17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="unnamed protein product; Ewing sarcoma homolog (MGD|MGI:99960, GB|NM_007968, evidence: BLASTN, 99%,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /tissue_type="head"
/clone_lib="RIKEN full-length enriched
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone="3300002D11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'note="putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          _type="mRNA"
lin="cr"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              start=3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 882.6; DB 3;
Pred. No. 1.2e-208;
0; Mismatches 74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          days embryo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mouse cDNA library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                            371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    251
                                                                                                                                551
                                                                                                                                                                                                                     491
                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                      431
                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
  600
                                                                                     540
                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
```

Ś

8 8 8 8 8 8

Ş

음 성 음 성 음 성 음

중 유

유 성 유

AUTHORS

The RIKEN Genome Exploration FANTOM Consortium.

Research Group

Phase II Team

and the

```
RESULT 12
AK019460
                                                                                                                                                                                                                                        PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      멹
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                    JOURNAL
MEDLINE
                  JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                 BTIIL
                                                                                                                                                                                                                                                                                                                                                                                                                                             PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence.
AK019460
                                                     Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamameto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A., and Hayashizaki, Y. RIKEN integrated sequence analysis (RISA) system—384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                    Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Komo,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AK019460 2107 bp mRNA linear HTC 03 Mus musculus 18 days pregnant adult female placenta and exembryonic tissue cDNA, RIKEN full-length enriched library,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA
Meth. Enzymol. 303, 19-44 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AK019460.1 GI:12
HTC; CAP trapper.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            clone:3830417B11 product:Ewing
                                                                                                                                                                                                                                                                                 11042159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATAAAGGCGAGCACCGTCAGGAACGCAGAGACCGGCCCTAC 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCTTTAATGGAACAGATGGGAGGAAGAAGAGGCGGACGTGGAGGACCTGGGAAAAATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAAATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCCTGGAGGAATGTTCAGAGGTGGCAGAGGTGGAGACAGAGGAGGCTTCCGAGGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAGGAGGTGGCCTCATGGATCGTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTGTCCCAATCCGGGCTGTGGAAACCAGAACTTCGCTTGGAGAACAGAATGCAACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GI:12859676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sarcoma homolog, full insert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cloning
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    extra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 731
```

```
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                   SgS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 L. Nature 420, 563-573 (2002)

18 6 (bases 1 to 2107)

18 6 (bases 1 to 2107)

S. Adachi, J., Aizawa, K., Akahira, S., Akimura, T., Arai, A., Aono, H., Adachi, J., Aizawa, K., Carninci, P., Fukuda, S., Fukunishi, Y., Arakawa, T., Bono, H., Carninci, P., Fukuda, N., Hiramoto, K., Furuno, M., Hanagaki, T., Hara, A., Hayateu, N., Hiramoto, K., Hiraoka, T., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Kabukawa, T., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C., Saito, H., Saito, R., Saikai, C., Sakai, K., Sano, H., Sasaki, D., Saito, H., Saito, R., Shibata, Y., Shinagawa, A., Shiraki, T., Sogabe, Y., Shihata, Y., Toya, T., Yamamura, T., Yasunishi, A., Yoshida, K., Yoshino, M., Muramatsu, M. and Hayashizaki, Y., Yoshida, K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (18-AUG-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Group Phase I & II Team.
Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Please visit our web site (http://genome.gsc.riken.jp/) for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Functional annotation of a full-length mouse cDNA collection Nature 409, 685-690 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FANTOM Consortium and the RIKEN Genome Exploration Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BamHI. Host: DH10B
                                                                                                                                                                                                                                                                                /proteIn_id="BAB31732.1"
/db_xref="G1:12859677"
/db_xref="G1:12859677"
/translation="MASTDVSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY
/translation="MASTDVSTYSQAAAQQGYSAYTAQPTQGYAGTGTYDSTY
GQPTDVSYTQAQTTATYGQTAYATSYGQPPTGYSTFTAPQDGNKPAETSQPQSSTGGYNQ
ATVTTTQASYAAQTAYGTQPAYPTYGQQPTATAPTSYSSGQPTSYDQSSYGQQNTYGQPS
SYGQQSSYGQQSYGQQPTSYPQTYGSYSQAPSQYSSYGQQSSFRQDHPSSNG
SYGQQSSYGQQSSYGQQSTPPTSYPQTYGSYSQAPSQYSGQSSYGQQSSFRQDHPSSNG
VYGQESGGFSGPGENRSLSGPDNRGRGRGGFDRGGMSRGGRGGRGGLGAGERGGFNK
    PGGPMDEGPDLDLGLPIDPDEDSDNSAIYVQGLNDNVTLDDLADFFKQCGVVKNNKRT
                                                                                                                                                                                                                                                                                                              /tissue_type="placenta and extra embryonic tissue"
/clone_lib="RIKEN full-length enriched mouse cDNA
/dev_stage="18 days pregnant adult"
                                                                                                                                                                                                                                                                                                                                                                                                       /strāin="C57BL/6J"
/db xref="FANTOM DB:3830417B11"
/db xref="taxon:10090"
/clone="3830417B11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Mus musculus"
/mol_type="mRNA"
                                                                                                                                                                                                                                                        (MGD | MGI:99960,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                              note="unnamed
                                                                                                                                                                                                                                                                                                                                                                                    'sex="female"
                                                                                                                                                                                           codon_start=1
                                                                                                                                                                                                                                                      protein product; Ewing sarcoma homolog, GB|NM_007968, evidence: BLASTN, 99%,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kouda, M.,
                                                                                                                                                                                                                                                                                                                                          cDNA library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Owa, C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Aono, H.,
                       S
                                                                                                      S
                                                                   믔
                                                                                                                                                 멅
                                                                                                                                                                                    Ô
                                                                                                                                                                                                                                  멅
                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                   봈
                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                     무
                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멅
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           멅
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           멅
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            멅
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            무
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           무
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  멅
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멅
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   멅
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
```

```
GQPMTHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPM
NSMRGGMPPREGRGMPPPLKFGSRGNP
SGGGNVQHRAGDMQCPMPGCGNQNPAMRTECNQCKAPKPEGFLPPPPPPGGDRGRGP
PGGMRGGRGGLMDRGGPGGMFRGGRGDRGGPRGGRGMDRGGPGGRRGGPGGPPGPL
MEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"
```

Query Best L Matche	Query Match 86.9%; Score 879.2; DB 3; Length 2107; Best Local Similarity 91.7%; Pred. No. 9.4e-208; Matches 928; Conservative 0; Mismatches 84; Indels 0; Gaps 0;	
ਲੋਂ ਵੱ	1 AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC 60	
₹	61 CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA 120	
ਰਾ _'	O CATGGATGAAGGACCAGATCTTGATCTAGGCCTTCCTATAGATCCCGATGAAGACTCTGA 10	
ਲੋਂ ਵ	121 CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA 180 	
·	CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA 240	
ō	1150 CTTCTTTAAGCAGTGGGGGTTGTCAAGATGAACAAGAGAACTGGACAACCCATGATCCA 1209	
ह र	241 CATCTACCTGGACAAGGAAACAGGAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGA 300	
₹	301 CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAA 360	
σ	1270 TCCACCAACTGCAAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGAAGCAA 1329	
हे द	361 ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC 420	
₹	421 ACCCCGTGAGGGCAGAGGCATGCCACCACCACCTCCGTGGAGGTCCAGGAGGCCCAGGAGG 480	
ਰ	1390 ACCTCGTGAGGGCAGGGGATGCCACCACTTCGTGGAGGTCCTGGTGGCCCAGGAGG 1449	
, य	481 TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC 5	
₹ ≀	1 AAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAAGAAACGTCCAGCAC	
ō.	1510 AAGAGGGCCCCGAGGCTCCAGAGGAAACCCCCTCTGGAGGAAATGTCCAGCACCGAGC 1569	
~	601 TGGAGACTGGCAGTGTCCCGATTCTGGAAACCAGAACTTCGCCTGGAGAACAGA 660	
ਰਾ	1570 TGGAGACTGGCAGTGTCCCAATCCGGGCTGTGGAAACCAGAACTTCGCTTGGAGAACAGA 1629	
4	661 GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCC 720	
ō	1630 ATGCAACCAGTGTAAGGCCCCTAAGCCCGAGGGCTTCCTCCCGCCACCCTTTCCACCTCC 1689	
Ÿ	721 GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCAT 780	
ъ	1690 GGGTGGTGATCGTGGACGAGGTGGCCCTTGGTGGCATGCGAGGAGGAAGAAGAAGGACTCAT 1749	
4	781 GGATCGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT 840	
6	1750 GGACCGTGGTGGTCCTGGAGGAATGTTCAGAGGTGGCAGAGGTGGAGACAGAGGAGGCTT 1809	
4	841 CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTTGGTGGAGGAAGAAGAAGAAGGTGGCCCTGG 900	
ъ	1810 CCGAGGTGGCCGTGGAATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGTCCTGG 1869	
~	901 GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACC 960	

```
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
AK034755
                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PUBMED
                Adachi,J., Aizawa,K., Akimura,T., Arakawa,T., Bono,H., Carninci,P., Fukuda,S., Furuno,M., Hanaggki,T., Hara,A., Hashizume,W., Hayatsu,N., Hiramcto,K., Hiracka,T., Hirozane,T., Hori,F., Imotani,K., Ishii,Y., Itoh,M., Kagawa,I., Kasukawa,T., Katoh,H., Kawai,J., Kojima,Y., Kondo,S., Konno,H., Kouda,M., Koya,S., Kurihara,C., Matsuyama,T., Miyazaki,A., Murata,M., Koya,S., Kurihara,C., Matsuyama,T., Miyazaki,A., Murata,M., Nakamura,M., Nishi,K., Nomura,K., Numazaki,R., Ohno,M., Ohsato,N., Okazaki,Y., Saito,R., Saitoh,H., Sakai,K., Sakazume,N., Sano,H., Sasaki,D., Shibata,K., Shinagawa,A., Shiraki,T., Sogabe,Y., Tagami,M., Tagawa,A., Takahashi,F., Takaku-Akahira,S., Takeda,Y., Tanaka,T., Tomaru,A., Toya,T., Yasunishi,A., Muramatsu,M. and Hayashizaki,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Shibata,K., Itoh,M., Aizawa,K., Nagaoka,S., Sasaki,N., Carninci,P., Konno,H., Akiyama,J., Nishi,K., Kitsunai,T., Tashiro,H., Itoh,M., Suni,N., Ishii,Y., Nakamura,S., Hazama,M., Nishine,T., Haradda,A., Yamamoto,R., Matsumoto,H., Sakaguchi,S., Ikegami,T., Kashiwagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E., Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y., RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequence cenome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AK034755

AK034755

MUS musculus 12 days embryo embryonic body between diaphragm region and neck CDNA, RIKEN full-length enriched library, clone:9430031M11 product:Ewing sarcoma homolog, full insert sequence.
                                                                                                                                                                                                                                                                                                           Group Phase I & II Team.
Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs
Nature 420, 563-573 (2002)
6 (bases 1 to 2373)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AK034755.1 GI:26084174
HTC; CAP trapper.
Submitted (16-JUL-2001) Yoshihide Hayashizaki,
                                                                                                                                                                                                                                                                                                                                                                                                                          The FANTOM Consortium and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Functional annotation of a full-length mouse cDNA collection Nature 409, 685-690 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FANTOM Consortium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The RIKEN Genome Exploration Research Group Phase II Team and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AK034755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20499374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1076861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1042159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .0349636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGAAAATGGATAAAGGCGAGCACCGTCAGGAACGCAGAGACCGGCCCTAC 1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGGCCTCCTGGACCTTTAATGGAACAGATGGGAGGAAGAAGAGGCGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                       RIKEN Genome Exploration Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
  The Institute
  얁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                              á
                                                                                                                                                                                                                                                                                                                당.
                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
δ
                                       멼
                                                                                                                                 밁
                                                                                                                                                                   5
                                                                                                                                                                                                                    뮍
                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                   1177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1057
                                                                                                                                                                                                                        1297
                                                                                                                                                                                                                                                                                                                1237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1117
                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   μ
```

```
polyA_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSURIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, YokoKanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cDNA library was prepared and sequenced in Mouse Genome
Encyclopedia Project of Genome Exploration Research Group in R.
Genomic Sciences Center and Genome Science Laboratory in RIKEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                prepare mouse tissues.
Please visit our web site for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC 540
                                                                                                                                                                                                           ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCC 420
                                                                                                                                                                                                                                                                                                                           CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTTGATGGGAAAGATTTTTCAAGGGAGCAA 360
                                                                                                                                                                                                                                                                                                                                                                                                     TATCTACCTGGATAAGGACAGGAAAGCCTAAAGGGGACGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                     CATCTACCTGGACAAGGAAACAGGAAAGGCCCAAAGGCGATGCCCACAGTGTCCTATGAAGA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCTTTAAGCAGTGTGGGGGTTGTCAAGATGAACAAGAGAACTGGACAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACCTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAACAGTGCAATTTATGTGCAAGGATTAAATGACAATGTGACTCTGGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATGGATGAAGGACCAGATCTTGATCTAGGCCTTCCTATAGATCCCGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGAGGACGCGGTGGACTGGGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGACGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACC
                                                                                                                  ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG 480
                                                                                                                                                                          ACTTAAAGTGTCTCTTGCCCGAAAGAAGCCTCCAATGAACAGCATGCGGGGAGGCATGCC
                                                                                                                                                                                                                                                                                     TCCACCAACTGCAAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             evidence: BLASTN, putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /dev_stage="12
43. .2011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="Ewing sarcoma homolog (MGD|MGI:99960, GB|NM_007968
svidence: BLASTN, 99%, match=2172)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2358.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone_lib="RIKEN full-length
/dev_stage="12 days embryo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tissue_type="embryonic body between diaphragm region and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /db_xref="taxon:10090"
/clone="9430031M11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /mol_type="mRNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  db_xref="FANTOM_DB:9430031M11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   86.6%;
91.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .2363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 876; DB 3;
Pred. No. 6.1e-207;
0; Mismatches 86;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             days
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           enriched
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 2373;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mouse cDNA library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Yokohama,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GSC),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Riken
                                                                                                                                                                                                                                                                                                                                                                                                     1296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                          1416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
```

<

Gaps

N

256

962

436

376

842 316 902

782

496 722

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 14
BX387336/c
                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                        Genoscope - Centre National de Sequencage 2 rue Gaston Cremieux, CP 5706 - 91057 EVRY cedex - FRANCE 2 rue Gaston Cremieux, CP 5706 - 91057 EVRY cedex - FRANCE Email: segref@genoscope.cns.fr, Web: www.genoscope.cns.fr lst strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen. This sequence belongs to sequence cluster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BX387336 Homo sapiens NEUROBLASTOMA COT 50-NORMALIZED Homo sapiens CDNA Clone CSODD004YE17 3-PRIME, mRNA sequence.
BX387336.1 GI:30455516
EX387336.1 GI:30455516
                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 1020)
Li, W.B., Gruber, C., Jessee, J. and Polayes, D. Full-length cDNA libraries and normalization Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                 Contact: Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAGGAGGACGTGGAGGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGAACAAGGTGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGCAACCAGTGTAAGGCCCCTAAGCCCGAGGGCTTCCTCCCGCCACCCTTTCCACCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGACCGTGGTGGTCCTGGAGGAATGTTCAGAGGTGGCAGAGGTGGAGACAGAGGACGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGGCCTCCTGGACCTTTAATGGAACAGATGGGAGGAAGAAGAAGACGCGGACGTGGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGAGGTGGCCGTGGAATGTACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGTCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGTGGTGATCGTGGACGAGGTGGCCCTGGTGGCATGCGAGGAGGAAGAGGACGACTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGAGGCCCCGAGGCTCCAGAGGAAACCCCTCTGGAGGAAAATGTCCAGCACCGAGC
                                                                                                                                                                    more information about this cluster, see p://www.genoscope.cns.fr/cdna?s=CS6AD001ZD03NP1&c=10589.f.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens (human)
tissue_type="NEUROBLASTOMA COT 50-NORMALIZED"
/clone_lib="Homo sapiens NEUROBLASTOMA COT 50-NORMALIZED"
/note="lst strand cDNA was primed with a NotI-oligo(dT).
                                                           organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODD004YE17"
                                                                                                                                                      ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1536
     RESULT 15
AK049743
LOCUS
                                                                                                                         S
                                                                                                                                                                        맑
                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                     멍
                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 855; Conserv
                                                                                                                                                                                                         917
                                                                                                                                   977
                                                                                                                                                                        242
                                                                                                                                                                                                                                                   302
                                                                                                                                                                                                                                                                                                                                                                                                422
                                                                                                                                                                                                                                                                                                                                                                                                                                   737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                197
       AK049743
                                                                                                                         GGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1012
                                                                                                                                                                                                                                                                                    ATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCT
                                                                                                                                                                                                                                                                                                                                            GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                   AGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGAGGTGGCCTCATGGATCGTGGTGGTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCATGCCACCCACAYTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGT 196
                                                                                                                                                                          TTGATGGAACAGATGGGAAGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAA
                                                                                                                                                                                                          TTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGACCTGGAAAAATGGATAAA
                                                                                                                                                                                                                                                 ATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                AGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCCGAGGGAACCCCTCTGGAGGAGGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCC-GGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GYGGTTKTWAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            82.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 834.8; DB 5;
Pred. No. 9.1e-197;
1; Mismatches 8;
       2269
     ģ
     mRNA
     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
     HTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ک
```

03-APR-2004

183 976 916

303 856 363 796 423 483

736

543 616 603 556 662

676

243

밁 र् 밁 र् 밁 S 문 S 밁 ঠ 문 δ 밁 र् 밁 δ 밁

```
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AK049743
AK049743.1 GI:26093614
HTC; CAP trapper.
Mus musculus (house mouse
Mus musculus
                                                                                                                                                                                                                                                                        Adachi, J., Aizawa, K., Akimura, T., Arakawa, T., Bono, H., Carninci, P. Pukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hashizume, W., Hayashida, K., Hayatsu, N., Hiramoto, K., Hiramoka, T., Hirozane, T., Hori, F., Imotani, K., Ishii, Y., Itoh, M., Kagawa, I., Kasukawa, T., Katoh, H., Kawai, J., Kojima, Y., Kondo, S., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Murata, M., Nakamura, M., Nishi, K., Nomara, K., Numazaki, R., Ohno, M., Ohsato, N., Okazaki, Y., Saito, R., Saitoh, H., Sakai, C., Sakai, K., Sakazume, N., Okazaki, Y., Saito, R., Shibata, K., Shinagawa, A., Shiraki, T., Sogabe, Y., Tagami, M., Tagawa, A., Takahashi, F., Takaku-Akahira, S., Takeda, Y., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Group Phase I & II Team.

Analysis of the mouse transcriptome based on of 60,770 full-length cDNAs

Nature 420, 563-573 (2002)

6 (bases 1 to 2269)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Shibata, K., Itoh, M., Alzawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kiteunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishi, Y., Nakamura, S., Kiteunai, T., Tashiro, H., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A., and Hayashizaki, Y. RIKEN integrated sequence analysis (RISA) system-384 format sequencing pipeline with 384 multicapillary sequencer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Meth. En 99279253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus 12 days embryo spinal cord cDNA, RIKEN full-length enriched library, clone:C530046A18 product:Ewing sarcoma homolog.
cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Rike Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
                                                                                                             Submitted (16-JUL-2001) Yoshihide Hayashizaki, The Institute of physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokoha Kanagawa 230-0045, Japan (B-mail-genome-resegsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The FANTOM Consortium and the RIKEN Genome Exploration Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Functional annotation of a full-length mouse cDNA collection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The RIKEN Genome Exploration Research Group Phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Carninci, P. and Hayashizaki, Y.
High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                              Fax:81-45-503-9216)
                                                                                                                                                                                                                                                            Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FANTOM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Genome Res. 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20499374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11042159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10349636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; CAP trapper.
musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                409,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  685-690 (2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      functional annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      II Team and
                                                                                                                                                             Yokohama
                                                in Riken
                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ्र
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                          밁
                                                          S
                                                                                                                  문
                                                                                                                                                           र्
                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               polyA_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1010
                                                                                                                                                                                                                                                                                                                                                                                                       1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                        481
```

```
Query Match 78.3%;
Best Local Similarity 90.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 CATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   prepare mouse tissues.
Please visit our web site for further details.
URL:http://genome.gsc.riken.jp/.
URL:http://fantom.gsc.riken.jp/.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                              CCCTGGAGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGACAGAGGGGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                 TCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCACCAACTGCAAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTTCAAGGGAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TATCTACCTGGATAAGGAGACAGGAAAGCCTAAAGGGGACGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGGATGCCACAGTGTCCTATGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAACAGTGCAATTTATGTGCAAGGATTAAATGACAATGTGACTCTGGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGATCCCGATGAAGACTCTGA
ATGCAACCAGTGTAAGGCCCCTAAGGCCCGAGGGCTTCCTCCCGGCCACCCTTTCCACCTCC
                                          GTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCC
                                                                                                                                                TGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGA 660
                                                                                                                                                                                                        AAGAGGGCCCCGAGGCTCCAGAGGAAACCCCCTCTGGAGGAGGAAATGTCCAGCACCGAGC
                                                                                                                                                                                                                                                        AAGAGGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTCTTTAAGCAGTGTGGGGTTGTCAAGATGAACAAGAGAACTGGACAACCCATGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       evidence: BLASTN, putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="putative"
2269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="Ewing sarcoma homolog (MGD|MGI:99960, GB|NM_007968
svidence: BLASTN, 99%, match=2172)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /tissue_type="spinal cord"
/clone_lib="RIKEN full-length
/dev_stage="12 days embryo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /mol_type="mRNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             clone="C530046A18"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   _xref="FANTOM_DB:C530046A18"
_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             _stage="12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 792.8; DB 3; Pred. No. 3.1e-186;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          enriched mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 2269;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cDNA library"
                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                              1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1009
                                                                                                   1549
                                                                                                                                                                                                           1489
                                                                                                                                                                                                                                                                                                                                                                                                                    1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
     1609
```

B &	<u> </u>	ß 8	유 성	B 8
961 1849	901 1789	841 1730	781 1670	721 1610
TGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGGCGCAGAGATCGGCCCTAC 1012	901 GGGGCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAGGACC 960 	841 CCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGAAGACGAGGTGGCCCTGG 900	781 GGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTT 840	. GGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAAGAGGTGGCCTCAT 780

Search completed: February 20, 2005, 16:17:55 · Job time : 2994.19 secs

This Page Blank (uspto)

٢`

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                     3210
3178.5
1639
1429
1420
1420
                                                                                                                                                                                                                                                                                                                                                                                                    3611
3600.5
3571.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B B
      1281.5
1281.5
1273
1263
1263
1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3633
3633
3624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    eeq
eq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein search,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A_Geneseq_16Dec04:*
1: geneseqp1990s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2001s:*
6: geneseqp2003as:*
7: geneseqp2003as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BLOSUM62
Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          February 18, 2005, 14:30:59 , Search time 172 Seconds (without alignments) 1475.086 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-791-017A-2
3633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2105692 seqs, 386760381 residues
                                                                                                                                                                                                                                                                                                                    Maximum Match
Listing first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MASTDYSTYSQAAAQQGYSA.....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        geneseqp2004s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000000000
      \begin{array}{c} 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\ 6656\\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               using sw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100%
45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                  ADR09402
ADP56334
ABM80197
ABG95068
AAW34971
ADI26113
AAM78355
ABG95081
ADI26117
                                                                                                                                                                                                                                                                                                                                                                            ABG06460
ABB57126
ADA55145
                                                                                                                                                                                                                                                                                                                                                                                                                                           ADS16278
ABM82330
AAR44555
AAW33813
                                                                                      ABG95084
ADR14649
                                                                                                                           ABM81732
ADS88302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ╏
                                                                   AM78356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . GGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2105692
                                                                                                                                                                                                                                                                    Aaw33813
Abg06460
Abb57126
Adac145145
Adr09402
Adp56334
Abm80197
Abg95068
Aaw34972
                                                                                Aam78355
Abg95081
Adi26117
Adm81732
Adm88302
Abg95084
Adr14649
                                                                                                                                                                                                                               Aaw34971
Ad126113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ads16278
Human Ewi
Human Ews
Human Ews
Human Ews
Human pro
Human pro
Human pro
Human pro
Human rra
Chimeric
Chimeric
Human pro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   656
```

45	44	43	42	41	40	39	38	37	36	<u>υ</u>	34	ω ω	3 2	31	30	29	28	27	26
400.5	400.5	470.5	472.5	475	475	475	475	475	475	475	475	484	531.5	621	623	717.5	799.5	1003.5	1009
11.0	11.0	13.0	13.0	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.3	14.6	17.1	17.1	19.7	22.0	27.6	27.8
1466	1466	462	462	83	83	83	. 83	83	83	83	83	295	266	280	156	399	260	589	592
ŋ	4	8	v	s	4	4	4	4	4	4	4	N	7	8	ω	4	7	æ	8
ABB90747	ABB50291	ADE77159	ABG95083	ABG46973	ABG59596	AAM65255	AAM77960	ABB27099	AAM38178	ABB44223	AAM21854	AAR44579	ADL22735	ADI26115	AAB44066	ABB60010	ADJ68310	ADI26207	ADI26209
Abb90747 Human Tum	Abb50291 Collagen	Ade77159 Human pro	Human	Abg46973 Human pep	Abg59596 Human liv	Aam65255 Human bra	Aam77960 Human bon		Aam38178 Peptide #	Abb44223 Peptide #	Aam21854 Peptide #	Aar44579 EWS gene/	Adl22735 Human dis	Adi26115 Human pro	Aab44066 Human can	Abb60010 Drosophil		Adi26207 Human pro	Adi26209 Human pro

ALIGNMENTS

RESULT 1 ADS16278

Obendorf M, 04-MAR-2003; 2003DE-01009280 25-APR-2003; 2003US-0465692P 08-SEP-2004. EP1455190-A1. Homo sapiens human; Ewing sarcoma; EWS; prostatic cancer; alopecia; acne; hypogonadism; androgen-resistance syndrome; testicular feminisation. Human Ewing sarcoma protein SeqID 2. 18-NOV-2004 ADS16278; ADS16278 standard; protein; 16-FEB-2004; 2004EP-00003422 (SCHD) SCHERING AG. Wolf S; (first entry) 656 B

Determining the hormonal effects of substances, used to identify pharmaceuticals, e.g. for treatment of androgen receptor dysfunction, from modulating interaction between nuclear receptors and Ewing sarcoma

N-PSDB; ADS16277. WPI; 2004-627861/61.

Disclosure; SEQ ID NO 2; 30pp; German.

This invention relates to a novel modulators that alter the interaction between the Ewing sarcoma protein (EWS) and its nuclear receptor, as well as the screening method thereof. Specifically, it refers to determining and identifying a hormonal effect brought about by test compounds that modulate either the binding of EWS to the nuclear receptor or the ligand-induced activity of this receptor. The present invention describes the nuclear receptors as including oestrogen, progestorne, thyroid hormone, Vitamin D, and retinoic acid receptors, most preferably they are androgen receptors. Accordingly, these modulators may be used in the development of pharmaceutical compositions that can diagnose and be used to treat

```
RESULT 2
ABM82330
ID ABM8
XX
AC ABM8
XX
DT 18-N
DT Tumc
XX
Tumc
XX
Tumc
XX
Cut
XW
Cut
                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               និនិនិនិនិនិ
                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
Tumour-associated antigenic target; TAT; human; overexpression; tumour, diagnosis; cell proliferative disorder; breast cancer; colorectal cancer; lung cancer; overian cancer; liver cancer; central nervous system cancer; bladder cancer; pancreatic cancer cervical cancer; melanoma; leukaemia; hybridisation probe;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diseases associated with receptor dysfunction such as prostatic cancer, alopecia, acne, hypogonadism and androgen-resistance syndrome e.g. testicular feminisation. This method provides reliable, sensitive, simple, inexpensive and rapid assessment of the hormonal effects of these test compounds. This polypeptide sequence is the human Ewing sarroma protein of the invention.
                                                                                                 Tumour-associated
                                                                                                                               18-NOV-2004
                                                                                                                                                               ABM82330
                                                                                                                                                                                              ABM82330 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              656;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               656
                                                                                                                                                                                                                                                                                             GGRGMDRGGFGGGRRGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                             NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SAIYVQGLNDSVTLDDLADFFKQCGVVKMKRTGQPMIHIYLDKETGKFKGDATVSYEDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOPVTAPPSYPPTSYSSTOPTSYDOSSYSOONTYGOPSSYGOOSSYGOOSSYGOOPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MQFVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                          GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                        NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                     GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                 GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKFGGFMDEGFDLDLGFPVDFDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                               (first
                                                                                                antigenic target
                                                                                                                                                                                            protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                              656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 3633; DB 8; Pred. No. 1.4e-216;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                (TAT)
                                                                                                polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                PRO58232,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               656;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>,</u>
                                                                                                SEQ:5990
                                                                                                                                                                                                                                                                          656
                                                                                                                                                                                                                                                                                                          656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6
                                                                                                                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
```

```
chromosome identification; chromosome mapping; gene mapping;
gene therapy; cytostatic.
                                                                                     therapy;
```

WO2004030615-A2

29-SEP-2003; 2003WO-US028547.

15-APR-2004

-2002; 2002US-0414971P.

(GETH)

GENENTECH INC.

Ē ď, zhang z,

2004-347921/32.

New tumor-associated antigenic target polypeptides and nucleic useful in preparing a medicament for treating or detecting a proliferative disorder, e.g. breast, lung, colorectal, ovarian prostate cancer or tumor. acids,

Claim 12; ID NO 5990; 7273pp; English.

The invention relates to human tumour-associated antigenic target (TAT) cc polypeptides, and their related nucleic acids. The TAT polypeptides are coverexpressed in cancer tissues compared to normal tissues, and may thus cerve as effective targets for the diagnosis and treatment of cancer in cc mammals. The invention also relates to nucleic acid and polypeptide cc sequences at least 80% identical to the TAT nucleic acids and compression vectors and host cells comprising a TAT nucleic cc acid; an antibody specific for a TAT polypeptide; a peptide or organic concecule which binds to a TAT polypeptide; appetide or organic concecule which binds to a TAT polypeptide; an interest or cc targets of cancer in mammals. TAT polypeptides, nucleic acids, and concessis of cancer in mammals. TAT polypeptides, nucleic acids, cc antibodies, antagonists, binding molecules and compositions are useful cc for diagnosis of cancer, binding molecules and compositions are useful cc colorectal cancer, lung cancer, ovarian cancer, liver cancer such as breast cancer, cc colorectal cancer, maintended to composition and so breast cancer, cancer, pancreatic cancer, cervical cancer, cancers of the central cc cancer, melanoma and leukaemia. TAT nucleic acids may further be cused as hybridisation probes, in chromosome and gene mapping, in cc chromosome identification and in gene therapy. The present sequence cc crepresents a TAT polypeptide of the invention

Sequence 656 AA;

```
뮹
                 Ś
                                       밁
                                                      Ś
                                                                             밁
                                                                                             Ś
                                                                                                                                  Ś
                                                                                                                   문
                                                                                                                                                         Best Local Sim Matches 656;
                                                                                                                                                                   Query Match
Best Local :
                                       121
181
                   181
                                                         121
                                                                             61
                                                                                               61
                                                                                                                              1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                   Similarity
                                                                          YSTGAQQQSYSSQQQYSSSQQQYTNQQQSYSQQQSYSQQQSYSQQQSYSQQQSYGQQSYGQQQSYGQQQSYGQQQSYGQQQ
                                                       QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                       QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                          Conservative
                                                                                                                                                                   100.0%;
                                                                                                                                                          <u>.</u>.
                                                                                                                                                                   Score 3633;
Pred. No. 1
                                                                                                                                                         Mismatches
                                                                                                                                                                    1.4e-216;
                                                                                                                                                                             멂
                                                                                                                                                                            8
                                                                                                                                                          <u>,</u>
                                                                                                                                                          Indels
                                                                                                                                                                            Length
                                                                                                                                                          0
                                                                                                                                                          Gaps
                                                          180
  240
                     240
                                        180
                                                                              120
                                                                                                 120
                                                                                                                     60
                                                                                                                                      60
                                                                                                                                                          0
```

밁 ঠ

241 241

PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR

PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR

300 300

```
RESULT 3
ADAR44555
ID ADAR4
AC ADAR4
AC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઈ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઈ
                                                                                                                                                                                                                                                                                                              Aurias
Thomas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  chromosomal translocation; chimeric; chimaeric; Ewing sarcoma; Ews malignant melanoma; human chromosome 11; printive peripheral neuroectodermal tumour; human chromosome 22; hum-fli-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-MAR-2003
26-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAR44555 standard; protein;
The probes 22RR3 and 22RR12 were used to screen a human foetal brain cDNA library (Stratagene cat.# 936206). The clone BF1AC5 was identified and sequenced. It represents the entire coding region and 3'-UTR of the Ews
                                                                                                                                       New nucleic acid of EWS gene and its hybrid(s) - contg. gene sequence involved in chromosomal trans-location, also derived mRNA, probes, fusior proteins etc., for diagnosis and treatment of Ewing sarcoma and melanoma.
                                                                                                                                                                                                                                       WPI, 1993-386580/48.
N-PSDB; AAQ50643.
                                                                                                                                                                                                                                                                                                                                                                                                                                  20-MAY-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-NOV-1993.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9323549-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human EWS protein deduced from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAR44555;
                                                                                             Disclosure; Fig 6; 123pp; French.
                                                                                                                                                                                                                                                                                                                                                                                      (CNRS ) CNRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                            ດ >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SATYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMTHTYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGRGMDRGGFGGGRRGGFGGFPGFLMEQMGGRRGGRGGFGKMDKGEHRQERRDRFY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SAIYVQGLNDSVTLDDLADFFKQCGVVKMKRTGQPMIHIYLDKETGKFKGDATVSYEDF
                                                                                                                                                                                                                                                                                                            Delattre O,
Zucman J;
                                                                                                                                                                                                                                                                                                                                                                                   CENT NAT RECH SCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                  92FR-00006123.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93WO-FR000494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers 569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "corresponds to GGT codon"
                                                                                                                                                                                                                                                                                                                                       Desmaze
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      foetal brain cDNA clone BF1AC5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ξ
                                                                                                                                                                                                                                                                                                                                     ú
                                                                                                                                                                                                                                                                                                                                       Melot
                                                                                                                                                                                                                                                                                                                                     'n
                                                                                                                                                                                                                                                                                                                                       Peter
                                                                                                                                                                                                                                                                                                                                     Z,
                                                                                                                                                                                                                                                                                                                                     Plougastel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          656
                                                                                                                                                                  fusion
                                                                                                                                                                                                                                                                                                                                     8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
```

```
ARMSJET 4
ARMSJET
ARMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ន្តដ្ឋន
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 655
                                                                                                                                     Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene. (Updated on
                                                                 Key
Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 656
Region
                                                                                                                                                                                                      Tat stimulatory
                                                                                                                                                                                                                                              Human EWS protein.
                                                                                                                                                                                                                                                                                             06-JUL-1998
                                                                                                                                                                                                                                                                                                                                         AAW33813
                                                                                                                                                                                                                                                                                                                                                                                   AAW33813 standard;
                                                                                                                                                                            infection;
                                                                                                                                     sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  655;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SAIYVQGLNDSVTLDDLADFFKQCGVVKNNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MQPVTAPBSYPPTSYSSTQPTSYDQSSYDQQNTYGQPSSYGQQSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MASTDYSTYSQAAAQQGYSAYTAQPTQGYQGTQAYGGQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGIMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOPVTAPPSYPPTSYSSTOPTSYDOSSYSOONTYGOPSSYGOOSSYGOOSSYGOOPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NOCKAPKPEGFLPPPFPPPGGDRGRGGPVGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                            gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                             (first
                     /note= "imperfect
SF1"
                                                                 Location/Qualifiers 30. .44
                                                                                                                                                                            therapy;
                                                                                                                                                                               factor; Tat-SP1; transcriptional activity factor; HIV-1;
therapy; EWS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                   protein;
                                                                                                                                                                                                                                                                                             entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99.8%;
    . 236
                                                                                                                                                                                                                                                                                                                                                                                   656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 3624; DB 2;
Pred. No. 4.9e-216;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                   ₽
                                            repeat peptide showing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 656;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                              homology to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             656
                                                 Tat-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

```
ð
                                                                                                       밁
                                                                                                                                   ð
                                                                                                                                                                 밁
                                                                                                                                                                                            8
                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EWS is a member of a novel family of putative transcription factors that have RNA recognition motifs and which are frequently associated with many types of sarcomas. It shows homology to a novel human transcriptional activity factor, Tat-stimulatory factor (Tat-SF1, see AAW33811), that is involved in the regulation of transcriptional elongation of HIV-1 by Tat, is essential for Tat trans-activation and is a substrate of an associated cellular kinase. Tat-SF can be used to screen for binding agents useful in the treatment of HIV infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nucleic acid encoding Tat stimulating factor protein and transformed cells - proteins and binding agents, used to immunodeficiency virus infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             03-JUL-1996;
13-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1998-087086/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sharp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9800695-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (MASI ) MASSACHUSETTS INST TECHNOLOGY
                  481
                                                421
                                                                           421
                                                                                                          361
                                                                                                                                     361
                                                                                                                                                                   301
                                                                                                                                                                                                301
                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  654;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PA,
                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               656
GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                PTAKAAVEWPDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                         SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                             SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                   GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                            PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                        MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                    QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                           QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                 YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                               PTAKAAVEWFDGKDGQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                               GRGRGGFDRGGMSRGGRGGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                             PPOTGSYSOAPSOYSOOSSSYGOOSSFRODHPSSMGVYGOESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                          MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                              YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Page 47-51; 68pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             96US-0021218P.
96US-0033152P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97WO-US011713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "imperfect repeat peptide showing homology to Tat-
SF1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 3611; DB 2;
Pred. No. 3.1e-215;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        related
treat human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                   360
                                                                                                                                                                                                360
                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                  540
                                               480
                                                                            480
                                                                                                          420
                                                                                                                                     420
                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                              120
```

```
ARBSULT 5
ARBCOLT 5
ARBCOLT 5
ARBCOLT 13
AC ARBCO
XX ARBCO
XX ARBCO
XX ARBCO
XX HOME
X
                                                                                                                  CC The invention relates to isolated polynucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain CC reaction (PCR) primers, oligomers, and for chromosome and gene mapping, CC and in recombinant production of (II). The polynucleotides are also used in diagnostics as expressed sequence tags for identifying expressed CC genes. (I) is useful in gene therapy techniques to restore normal CC activity of (II) or to treat disease states involving (II). (II) is CC useful for generating antibodies against it, detecting or quantitating a polypeptide in tissue, as molecular weight markers and as a food CC supplement. (II) and its binding partners are useful in medical imaging CC of sites expressing (II). (I) and (II) are useful for treating disorders involving aberrant protein expression or biological activity. The CC diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits to assess biodiversity and to produce other types of data and products dependent on DNA and CC amino acid sequences of the invention. Note: The sequence data for this amino acid sequences of the invention. Note: The sequence data for this
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31-MAR-2000; 2000US-00540217.
23-AUG-2000; 2000US-00649167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-MAR-2001; 2001WO-US008631.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-FEB-2002
                                                                                          patent did not appear in the printed specification, electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 20; SEQ ID NO 36819; 103pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    biodiversity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200175067-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; chromosome mapping; gene mapping; gene therapy; forensic
food supplement; medical imaging; diagnostic; genetic disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABG06460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABG06460
                                                            ftp.wipo.int/pub/published_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001-639362/73.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAQRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diagnostic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein #6451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ኋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            forensic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
```

Sequence 665 AA

......

£,

1. 1.4

```
RESULT 6
ABB57126
ID ABB5
XX
AC ABB5
XX
DT 07-M
XX
MOUB
XX
MOUB
XX
VASO
XX
VASO
XX
VASO
PM WO20
XX
PD 22-N
XX
PD 18-P
XX
PA (U7)
                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                   श्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                           ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 652; Conserv
                                                                                                                                                                                                                                   07-MAR-2002
                            18-MAY-2000; 2000JP-00145977
                                                       18-MAY-2001;
                                                                                   22-NOV-2001
                                                                                                           WO200188188-A2
                                                                                                                                                               vasospastic ischaemia; ischaemic
                                                                                                                                                                             Mouse; ischaemia;
                                                                                                                                                                                                    Mouse ischaemic condition related protein sequence SEQ ID NO:289
                                                                                                                                                                                                                                                                                       ABB57126
                                                                                                                                                                                                                                                                                                                                                                                                                549
                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    309
                                                                                                                                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  652;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTT-QAYGQQSYGTYGQPTDVSYTQAQTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                       standard;
                                                                                                                                                                                                                                                                                                                                                                                                                             CNQCKAPKPEGFLPPPFPPPGGDRGRGGPGGPGGRRGGRGGLMDRGGPGGMFRGGRGGDRGGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTTQASYAAQSAYG
                                                                                                                                                                                                                                                                                                                                                                        RGGRGMDRGGFGGGRRGGPGGPFGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                               CNQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PGGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PGGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NSATYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NSAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RGRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RGRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YPPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQBSGGFSGPGENRSMSGPDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YPPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PMQPVTAPPSYSPPTSYSSTQPTSYDQSSYSQQNYYGQQSSYGQQSSYGQQSYGQQPPTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPAYPAYGOOPAATCPTRTEDXNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TQPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQQAYGQQSYGTYGQPTDVSYTQAQTTA
                                                                                                                                                                                                                                                                                                                                                         RGGRGMDRGGFGGGRRGGPGGPGGPLMEQMGGRRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PMOPVTAPPSYPPTSYSSTOPTSYDOSSYSQONTYGOPSSYGOOSSYGOOPPTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                       2001WO-JP004192
                                                                                                                                                                                                                                   (first
                                                                                                                                                                           compressive ischaemia; occlusive ischaemia;
                                                                                                                                                                                                                                                                                      protein;
                                                                                                                                                                                                                                entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99.1%;
99.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 3600.5; DB 4;
Pred. No. 1.4e-214;
1; Mismatches 3;
                                                                                                                                                                                                                                                                                       $
                                                                                                                                                               condition; ischaemic disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             665;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                         665
                                                                                                                                                                                                                                                                                                                                                                                  656
                                                                                                                                                                                                                                                                                                                                                                                                               809
                                                                                                                                                                                                                                                                                                                                                                                                                                        599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         128
```

```
Ishikawa K,
                                              2002-034733/04
                                            ABI99383
                                                 Asai S,
                                                  Takahashi
                                                  ۲
                                                 Nagata
                                                  'n
                                                  Ishii
```

Examining the ischemic condition (e.g. occlusive ischemia) by measuring expression levels of particular genes defined in the specification or by determining the expression profile of a gene group comprising these

Claim 2; Page 799-802; 2690pp; English.

The present invention describes a method for examining ischaemic conditions, comprising measuring the expression levels of particular genes (1) in a test sample or determining the expression profile of a gene group in the sample comprising genes selected from (1). The method is useful for examining the ischaemic condition (e.g. compressive ischaemia, occlusive ischaemia or vasospastic ischaemia) by measuring expression levels of particular genes (AB199202 to AB19912, encoding the protein sequences in ABB57020 to ABB57374) or by determining the expression profile of a gene group comprising these genes. The expression levels or expression profiles produced by these genes are used as an indicator when screening for ischaemic condition-improving drugs or therapeutics for ischaemic diseases. AB199913 and AB199914 represent PCR primers for a mouse ischaemic condition related sequence, which are used in the condition is the condition are used to the conditio in the exemplification of the present invention

Sequence 655 AA;

```
ð
                                                          밁
                                                                                  S
                                                                                                                 밁
                                                                                                                                              á
                                                                                                                                                                              밁
                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Simi
Matches 643;
540
                            541
                                                          480
                                                                                                                   420
                                                                                                                                                   421
                                                                                                                                                                               360
                                                                                                                                                                                                            361
                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                       481
                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                              QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                 NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                           GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                   MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPTSY
                                                          GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                      PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                               SAIYVQGLNDNVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                            SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                          GRGRGGFDRGGMSRGGRGGGRGGLG-AGERGGFNKPGGPMDEGPDLDLGLPIDPDEDSDN
                                                                                                                                                                                                                                                                        GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                       PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                           QPAYPTYGQQPTATAPTRPQDGNKPAETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                     PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGMPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                      PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSLSGPDNR
                                                                                                                                                                                                                                                                                                                                                                MQPVTAPPSYPPTSYSSSQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YGQTAYATSYGQPPTGYSTPTAPQAYSQPVQGYGTGAYDSTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 3571.5; DB 5;
Pred. No. 8.7e-213;
8; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                            600
599
                                                          539
                                                                                                                                                                                                                                                                                                                                  300
                                                                                     540
                                                                                                                   479
                                                                                                                                                 480
                                                                                                                                                                               419
                                                                                                                                                                                                            420
                                                                                                                                                                                                                                          359
                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
```

(UYNI-) UNIV NIHON SCHOOL JURIDICAL PERSON.

```
RESULT 7
ADAS5145
ID ADAS5
XX ADAS
XX ADAS
XX ADAS
XX ADAS
XX Cyto
KW Gene
KW infl
XX Homo
XX Homo
XX Homo
XX 21-P
XX 
                          S
                                                                            밁
                                                                                                                         á
                                                                                                                                                                           밁
                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention relates to novel human secretory or membrane proteins (ADA54072-ADA55710) and their coding sequences (ADA5433-ADA54071). The coding sequences are useful in the gene therapy of diseases caused by abnormalities of the proteins, e.g. cancer, inflammatory diseases, osteoporosis or neurological disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 14; SEQ ID NO 2713; 205pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New polynucleotides encoding full-length polypeptides, e.g. secretory and/or membrane proteins, useful for developing medicines for diseases which the gene is involved, or as target molecules for gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cytostatic; Anti-inflammatory; Osteopathic; Neuroprotective; Nootropic; Gene Therapy; human; secretory protein; membrane proteins; cancer; inflammatory disease; osteoporosis; neurological disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADA55145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-SEP-2001; 2001JP-00328381.
24-JAN-2002; 2002US-0350435P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-MAR-2002; 2002EP-00006586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EP1293569-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human protein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADA55145 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Іводаі Т,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Yamamoto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2003-395539/38.
DB; ADA53506.
                                                                               121
                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                               181
                                                                                                                                                                                                                                                                                                                                                                                       599;
                                                                                                                                                                                 61
                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                   \vdash
                                                                                                                                                                                                                                                                                                                                  \boldsymbol{\mu}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        T, Sugiyama T, o J, Isono Y, I Yoshikawa T, (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HELIX RES INST.
RES ASSOC BIOTECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                 QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
|||||||||
                                                                                                                                                                                                                                                                                                                  MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGRGMDRGGFGGGRRGGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                            QPAYPAYGQQPAATA----
                                                                                                                                                                                                              YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                  90.2%;
ilarity 91.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2713.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Otsuki T, Wakamatsu A, S:
Hio Y, Otsuka K, Nagai K,
Otsuka M, Nagahari K, Mas
                                                                                                                                                                                                                                                                                                                                                                                  Score 3277; DI
Pred. No. 1.3e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ξ
                                                                                                                                                                                                                                                                                                                                                                                                            ; DB 6;
1.3e-194;
                                                                                                                                                                                                                                                                                                                                                                                       1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Masuho
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sato H,
K, Irie
Masuho Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 600;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ishii S;
R, Tamechika
                                                                                                                                                                                                                                                                                                                                                                                       56;
                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          656
                                                                                                                              180
                                                                                                                                                                                 120
                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                     60
                                                                               135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Η
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ä
```

This invention

relates 2908;

ç

isolated English

full length

human

CDNA

Claim 1;

SEQ ID NO

2686pp; novel,

New 1995 cDNA, useful Alzheimer's diseases,

for treating osteoporosis, neurological diseases, Parkinson's diseases, dementia and various cancer

```
ARBSULT 8
ADRO9402
ID ADRO9402
ADRO ADRO
XX
ADRO
XX
ADRO
DT 04-N
DT 04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     human; oligo-capping method; diagnostic marker; gene therapy; osteoporosis; neurological disease; Alzheinera disease; Parkinson's disease; dementia; short memory; cancer; sense or motor function; emotional reaction; fear response; posteopathic; neuroprotective; nootropic; antiparkinsonian; cy
                                                                                                                                                                                                                                                                                                                                                                                  14-FEB-2003; 2003JP-00102207.
09-MAY-2003; 2003JP-00131452.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADR09402 standard;
                                                                                                                                                                              N-PSDB; ADR07446
                                                                                                                                                                                                                                                        Wakamatsu
                                                                                                                                                                                                                                                                             Isogai T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-FEB-2004; 2004EP-00003145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EP1447413-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tranquiliser.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human
                                                                                                                                                                                                      2004-583265/57.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGFMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGRGMDRGGFGGGRRGGPGGPFGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NQCKAPKPEGFLPPPFPPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NQCKAPKPEGFLPPPPPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----PTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQGSYGQQSYGQQPPTSY
                                                                                                                                                                                                                                                     Yamamoto
A, Ishii
                                                                                                                                                                                                                                                                                                                                ASSOC BIOTECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              useful for treating neurological disease Seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein; 604
                                                                                                                                                                                                                                                        ته زع
                                                                                                                                                                                                                                                     Nishikawa
Nagai K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₹
                                                                                                                                                                                                                                                        Irie
                                                                                                                                                                                                                                                        Isono
e R;
                                                                                                                                                                                                                                                                                Ķ
                                                                                                                                                                                                                                                                             Sugiyama
                                                                                                                                                                                                                                                                                ŗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cytostatic;
                                                                                                                                                                                                                                                                                   Otsuki T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
```

```
CC molecules and the encoded proteins thereof. Specifically, it refers to CC cDNA clones obtained by an oligo-capping method, where none of these CC clones are identical to any known human mRNAs. The present invention; cCC describes an immunoassay to identify agonists and antagonists, as well as CC antibodies, antisense molecules and siRNAs that can all be used to bind CC to and modulate expression of the cDNA molecules. As such, these CC molecules are useful for diagnostic markers or therapeutic targets for CC the various diseases or morbid states. In particular, they are useful in CC gene therapy for treating osteoporosis, neurological disease, Alzheimer's CC disease, Parkinson's disease, dementia, short memory and various cancers, CC disease, Parkinson's disease, dementia, short memory and various cancers, CC they exhibit osteopathic, neuroprotective, notropic, antiparkinsonian, CC they exhibit osteopathic, neuroprotective, notropic, antiparkinsonian, CC cytostatic and tranquiliser activities. This polypeptide is a protein concoded by a full length human cDNA sequence of the invention. NOTE: This sequence is not given in the sequence listing of the specification but can be obtained on CD-ROM from the European Patent Office, Vienna Sub-
```

88888888888888888888

Sequence 604 \$

Similarity

Length 604;

닭 Ś 밁 S 밁 S 밁 S 밁 र् 밁 Ş 밁 ş 밁 S 밁 S 밁 Ś Query Match Best Local S Matches 590 489 429 481 369 421 309 361 249 301 189 241 154 181 100 -----YSQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP 121 590; 61 1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT MQPVTAPPSYPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPTTSY QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP GGRGMDRGGFGGGRRGGPGGPGFLMEQMGGRRGGPGKMDKGEHRQERRDRPY PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY NOCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGIMDRGGPGGMFRGGRGGDRGGFR GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDLQCPNPGCGNQNFAWRTEC GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP SATYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR YGOTAYATSYGOPPTGYTTPSYPPT-----SYSSTOPT-----SYDQSS----YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT 88.4%; ilarity 89.9%; Conservative Score 3210; DB 8; Pred. No. 1.9e-190; 3; Mismatches 11; -----SYGQQSSYGQQSSYGQQPPTSY Indels 52; Gaps 656 604 120 548 600 488 540 480 420 308 360 248 300 188 153 180 99 60 428 368

RESULT 9 ADP56334 ID ADP5 ADP56334 standard; protein; 583

> antiasthmatic; antidiabetic; antiinflammatory; antipsoriatic; antirheumatic; antithyroid; CNS; dermatological; gastrointestinal; haemostatic; hepatotropic; immunostimulant; immunosuppressive; muscu nephrotropic; neuroprotective; osteopathic; respiratory; vasotropic; 29-OCT-2002; 2002US-0422472P 28-OCT-2003; 2003WO-US034381 13-MAY-2004 WO2004039956-A2 18-NOV-2004 Homo sapiens immune PRO protein sequence PRO; PRO; immune related disease; inflammatory immune response; response stimulation; antiallergic; antianaemic; antiarthr gene therapy. (first entry) SEQ ID NO:2310 immunosuppressive; muscular;

antiarthritic;

Aggarwal S, C (GETH) GENENTECH INC ADP56333. Clark H, Gurney AL, Schoenfeld Ģ Williams

New PRO polynucleotides and polypeptides, useful in useful in diagnosing and treating an immune related disease, e.g. systemic lupus erythematosus, rheumatoid arthritis, diabetes mellitus or asthma and in erythematosus, rheumatoid arthr stimulating an immune response.

Claim 1; SEQ ID NO 2310; 3009pp; English

The present invention describes an isolated PRO nucleic acid (I). Also described: (1) a vector comprising (I); (2) a host cell comprising the vector of (1); (3) a process for producing a PRO polypeptides; (4) an CC isolated PRO polypeptide; (5) a chimeric molecule comprising the CC polypeptide of (4) fused to a heterologous amino acid sequence; (6) an antibody which specifically binds to a polypeptide of (4); (7) a cC composition of matter comprising a polypeptide of (4), an agonist or CC polypeptide in combination with a carrier; (8) an article of manufacture comprising a container, a label on the container and a composition of CC matter of (7); (9) a method of treating an immune related disease in a CC mammal; (10) a method for determining the presence of a PRO polypeptide (CC in a sample suspected of having the polypeptide; (11) a method of identifying a compound that inhibits or CC mimics the activity of or expression of a gene encoding a PRO polypeptide (2) and (13) a method of stimulating the immune response in a mammal; (12) a method of identifying a compound that inhibits or CC mimics the activity of or expression of a gene encoding a PRO polypeptide (2) and (13) a method of stimulating the immune response in a mammal. The CC antiasthmatic, antidiabetic, antiinflammatory, antiarchitic, cc antiarchaptic, antiantanemic, antiarchitic, cc antiarchitologic, immunostimulant, immunosuppressive, muscular, composition, cell provided activities, and can be used in gene therapy. The nucleic acid (2) and the encoded polypeptides, compositions, kits and methods are useful in diagnosing and treating an immune related disease and in CC provided activities, and can be used in gene therapy. The nucleic acid (2) and the encoded polypeptides, compositions, kits and methods are composition in diagnosing and treating an immune related disease and in CC provided the process of the process of

Sequence 583 B

Query Match Best Local Similarity Matches 582; Conserv Conservative 87.5**%;** 88.7**%**; 0; Score 3178.5; Pred. No. 1.6 Mismatches .6e-188; DB 8; Indels Length 583; 73; Gaps 1,

```
RESULT 10
ABM80197
ID ABM80
XX ABM80
XX ABM80
XX TAM80
DT 18-NO
XX TAM90
XX CALOR
XX GETVI
XX GETVI
XX WO200
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ્ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            음 중
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         吊
                                                                                                                                                                                                                                                                                                        Tumour-associated antigenic target; TAT; human; overexpression; cumour; diagnosis; cell proliferative disorder; breast cancer; colorectal cancer; lung cancer; ovarian cancer; liver cancer; central nervous system cancer; bladder cancer; pancreatic cancer; cervical cancer; melanoma; leukaemia; hybridisation probe; chromosome identification; chromosome mapping; gene mapping;
     02-OCT-2002; 2002US-0414971P
                                                          29-SEP-2003; 2003WO-US028547.
                                                                                                                  15-APR-2004
                                                                                                                                                                          WO2004030615-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tumour-associated antigenic target (TAT) polypeptide PRO80700, SEQ:491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABM80197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABM80197 standard; protein;
                                                                                                                                                                                                                                                                                    therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NOCKAPKPEGFLPPPPPPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKFKGDATVSYEDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PPQTGSYSQAPSQYSQQSSSYGQQR------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOPVTAPPSYPPTSYSSTOPTSYDOSSYSOONTYGOPSSYGOOSSYGOOPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                         cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----PMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
```

```
The invention relates to human tumour-associated antigenic target (TAT) CC polypeptides, and their related nucleic acids. The TAT polypeptides are CC overexpressed in cancer tissues compared to normal tissues, and may thus CC serve as effective targets for the diagnosis and treatment of cancer in CC mammals. The invention also relates to nucleic acid and polypeptide compared to the TAT nucleic acids and treatment of cancer in CC mammals. The invention also relates to nucleic acid and polypeptide compression vectors and host cells comprising a TAT nucleic coid; an antibody specific for a TAT polypeptide; a peptide or organic concercule which binds to a TAT polypeptide; appetide or organic concercule which binds to a TAT polypeptide; an acids, and methods and compositions for the treatment or CC diagnosis of cancer in mammals. TAT polypeptides, nucleic acids, cancer in mammals. TAT polypeptides, nucleic acids, contribodies, antagonists, binding molecules and compositions are useful CC or diagnosing or treating a cell proliferative disorder associated with increased TAT expression, particularly cancers such as breast cancer, colorectal cancer, lung cancer, ovarian cancer, liver cancer, bladder concer, pancreatic cancer, cervical cancer, cancers of the central concer, pancreatic cancer, cervical cancer, cancers of the central concer, pancreatic cancer, cervical cancer, cancers of the central concer as hybridisation probes, in chromosome and gene mapping, in concers of the central cancer and gene mapping, in concers of the central cancer and gene mapping, in concers of the central cancer and gene mapping, in concers of the central cancer and gene mapping, in chromosome and gene mapping.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New tumor-associated antigenic target polypeptides and nucleic acids, useful in preparing a medicament for treating or detecting a proliferative disorder, e.g. breast, lung, colorectal, ovarian or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      prostate cancer or tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; ACN37537.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 491; 7273pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ķ
```

Sequence 361 AA;

Query Match Best Local Similarity

45.1%;

Score 1639; DB 8; Pred. No. 1.9e-93;

Length 361;

```
Ś
                                                         맑
                                                                                 Ś
                                                                                                                  밁
                                                                                                                                              S
                                                                                                                                                                             밁
                                                                                                                                                                                                     S
                                                                                                                                                                                                                                      닭
                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 303;
                                                                                      575
                                                                                                                                                 515
                                                                                                                                                                             181
343
                                                         301
                                                                                                                   241
                                                                                                                                                                                                        455
                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                   395
                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                           ш
                                                                                                                                                                                                                                                        QPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSM
                                                                                                                                                                                                                                                                                                                                                           MGVYGQESGGFSGLGENRSMSGPDNWGRGRGGFDRGGMSRGGRGGGCGGMGSAGEQVGFN
                                                                                                                                                                                                                                                                                                                                                                            MGVYGQESGGFSGPGENRSMSGPDNRGRGGGGFDRGGMSRGGRGGGRGGMGSAGERGGFN
                                                                                                                                                                                                       RGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGN
                                                                                                                                                                                                                                                                                                                 KPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTG
                             GRGGPGKMDKGEHRQERR 652
                                                                                      RGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFRGGPRGGPPGPLMEQMGGRRG
                                                                                                                                                                                                                                      QPMIHTYLDKETRKPKGDATVSCEDSPTAKAAVEWFDGKDFQGSKLKVSLARKRPPVNSM
                                                                                                                                                                                                                                                                                               KPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDNVTLDDLVDFFKQCGVVKMNKRTE 120
ALGGPRIFDVINGRKKRR
                                                                                                                                              VQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGG
                                                                                                                                                                             QGGMPPHEGRGMPPPLCGGPGGPGSPGGPMGHMGGRGGDRGGLPPRGPQGSRGNTSGGGN
                                                          RGGLMDHGGPGGMFRGGCGRDRSGFCGGWAWTEVA
                                                                                                                     VQHQAGDRQCPNPGCGNQNFAWRTESNKCKAPKPEGFLPPPFPPPGGDHGRGGPGGMWGG
                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                   14;
360
                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                      43;
                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                      18;
                                                          LVEE - - - DKV
                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                     300
                                                                                                                                               574
                                                                                                                                                                              240
                                                                                                                                                                                                          514
                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                     454
                                                                                                                                                                                                                                                                                                                              394
                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                    2
```

RESULT 11 ABG95068

```
The invention describes a method of treating genetically-defined disease CC associated with chromosomal aberrations yielding oncogenic fusion proteins (I), treating cancerous cells containing (I) in a heterogeneous cell population, treating proliferative diseases associated with mutant protein or cellular protein isoforms (II) dependent on heat shock protein the protein or cells expressing (II) involving cells expressing (II) involving cells expressing (II) involving conceptically-defined disease with chromosomal aberration yielding conceptic fusion protein, treating cancerous cells containing fusion protein in heterogeneous cell population, treating proliferative disease cells crotein in heterogeneous cell population, treating proliferative disease cells. The method is useful or cellular protein darthritis or cancer) associated with mutant protein or cellular protein isoform despendent on heat shock protein for cellular protein isoform despendent on heat shock protein cellular protein isoform in a patient heterozygous for (II). The method is useful for treating a disease e.g. haematopoletic disorder such as T or B cell lymphoma, chronic myeloid leukaemia (CML), APL, ALL, AML, NHL and CMML, or a disease characterised by a sociated to tumour such as papillary thyroid carcinoma, Bening's sarcoma, melanoma, liposarcoma, riabdomyosarcoma and confections. The method is also useful for treating viral confections. The method is also useful for treating viral confections. The method is also useful for treating viral confections.
                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Treating genetically-defined disease associated with chromosomal aberrations yielding oncogenic fusion proteins, e.g. cell proliferative diseases, involves administering an inhibitor of heat shock protein 90.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chromosome aberration; oncogenic fusion protein; cancer; proliferative disease; cellular protein isoform; heat shock protein 9; proliferative disease; cellular protein isoform; heat shock protein 9; Province of the protein fusion of the prote
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 204-206; 389pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fritz LC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-2001; 2001US-0272751P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAR-2002; 2002WO-US006518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200269900-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rhabdomyosarcoma; synovial sarcoma; viral infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABG95068 standard; protein; 476 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (CONF-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2002-698710/75
                         ш
                                                                                                                                                                                                                                                        h 39.3%;
Similarity 88.8%;
70; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CONFORMA THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                476
MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                         MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Burrows FJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (11; 22) (q24; q12) protein #1.
                                                                                                                                                                                                                                                              6
                                                                                                                                                                                                                                                        Score 1429; DB 5;
Pred. No. 2.6e-80;
6; Mismatches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORP
                                                                                                                                                                                                                                                                                                                                                                                       <u>ت</u>
                                                                                                                                                                                                                                                                     16;
                                                                                                                                                                                                                                                                                                                                                                          Length 476;
                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                              12;
                                                                                                                                                                                                                                                        Gaps
            60
                                                                                                                                     60
```

밁 δ

13

YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT ·120

श

```
AAW34972
IID AAW3
XX AAW3
AC AAW3
AC AAW3
AC CAim
AX Chim
XX Ewir
KW Ewir
KW PREI
KW Hey
FH Proi
FH Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
The present sequence represents a chimeric human Ewing's sarcoma (EWS)-WT1 protein. EWS is also known as peripheral neuroectodermal tumour (PNET). The protein is composed of EWS and WT1 proteins (see features table). The WT1 gene encodes 4 alternatively spliced RNA transcripts that produce functionally different products. One alternative splice site is at the 3' end of exon 9 and leads to products that differ by 3 amino acids placed between the third and fourth zinc fingers of the DNA binding domain. The present protein does not contain these three amino acids (Lys, Thr, Ser), while AAW34971 does. Detection of EWS-WT1 can be accomplished by reverse transcriptase PCR, where WT1 is screened (see AAT97852-68) as a breakpoint locus because of its involvement in Wilms'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ewing's sarcoma; EWS; EWS-WT1 protein; peripheral neuroectodermal tumour; PNET; breakpoint locus; Wilms' tumour; desmoplastic small round cell tumour; DSRC tumour.
                                                                                                                                                                                                                                                                                                                                                          Disclosure; Col 39-42; 34pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Diagnosis of desmoplastic small round cell tumours -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-MAY-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-MAY-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chimeric Ewing's sarcoma-WT1 protein splice variant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAW34972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW34972 standard; protein; 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ladanyi M, Gerald W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US5670317-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (SLOK ) SLOAN KETTERING INST CANCER RES
                                                                                                                                                                                                                                                                                                                                                                                                                   encoding chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1997-479448/44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENR 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PPQTGSYSQAPSQYSQQSSSYGQQS-----SFRQDHPSSMGVYGQESGGFSGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOPVTAPPSYPPTSYSSTOPTSYDOSSYSQONTYGOPSSYGOOSSYGOOPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GSGQ 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PPQTGSYSQAPSQYSQQSSSYGQQSPPLGGAQTISKNTEQRPQPDPYQILGPTSSRLANP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    95US-00437027.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95US-00437027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      265. .362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "WT1 protein'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "EWS protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                264
                                                                                                                                                                                                                                                                                                                                                                                                                   EWS-WT1 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B
                                                                                                                                                                                                                                                                                                                                                                                                                                                  by detecting nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
```

```
RESULT 13
AAW34971
ID AAW344971
AC AAW34
XX Chime
XX Ewing
KW PNETT
KW Gesm
OS Homo
OS Homo
XX W Gesm
OS Homo
XX OF HOSE
FT Prote
FT Prote
FT Prote
FT Prote
FT O8-M3
XX O8-M3
PR 08-M3
XX US567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                              Ewing's sarcoma;
PNET; breakpoint
desmoplastic smal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Oligonucleotides based on the AAT97889 are used in a method for the diagnosis of DSRC tumours in patients. The method comprises detecting a nucleic acid molecule encoding a chimeric EWS-WTI protein in a sample from the subject, where positive detection indicates the presence of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tumour, which shares some histopathologic features of desmoplastic small round cell (DSRC) tumours. The EWS-WT1 chimeric transcript has been detected in 11 out of 12 DSRC tumours studied and in none of 49 other tumours. DSRC tumours are associated with translocation of the EWS gene.
N-PSDB; AAT97869
                WPI; 1997-479448/44
                                                                                                            08-MAY-1995;
                                                                                                                                           08-MAY-1995;
                                                                                                                                                                          23-SEP-1997.
                                                                                                                                                                                                                                                       Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW34971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW34971 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 362 AA;
                                             Ladanyi M,
                                                                                                                                                                                                          US5670317-A.
                                                                                                                                                                                                                                                                                      Protein
                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                              (SLOK )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    265;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        r
                                                                            SLOAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                            Ewing's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PPQTGSYSQAPSQYSQQSSSYGQQS 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MQPVTAPPSYSTQPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PPQTGSYSQAPSQYSQQSSSYGQQS 265
                                               Gerald W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                   small
                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                              KETTERING
                                                                                                             95US-00437027.
                                                                                                                                           95US-00437027
                                                                                                                                                                                                                                                       /note=
                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                EWS; EWS-WT1 protein; peripheral neuroectodermal tumour; locus; Wilms' tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                              sarcoma-WT1 protein splice variant 1.
                                                                                                                                                                                                                                                                                                                                                                 round cell tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    39.1%;
                                                                                                                                                                                                                                                       .365
                                                                                                                                                                                                                                                                  "EWS protein"
                                                                                                                                                                                                                                      "WT1 protein'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1420; DB 2;
Pred. No. 6.9e-80;
0; Mismatches 0;
                                                                              CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₹
                                                                              RES.
                                                                                                                                                                                                                                                                                                                                                                 DSRC tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
```

XFFX#X555555555555555555555555555 Diagnosis of desmoplastic small round cell tumours - acid encoding chimeric EWS-WTl protein. á detecting nucleic

Disclosure; Col 37-40; 34pp; English

The present sequence represents a chimeric human Ewing's sarcoma (EWS)-CC (PNET). The protein is composed of EWS and WT1 proteins (see features (table). The WT1 gene encodes 4 alternatively spliced RNA transcripts that produce functionally different products. One alternative splice site is cardiage and leads to products that differ by 3 amino acids the 3' end of exon 9 and leads to products that differ by 3 amino acids placed between the third and fourth zinc fingers of the DNA binding CC domain. The present protein contains these three amino acids (Lys, Thr, CS ser), while AAM34972 does not. Detection of EWS-WT1 can be accomplished by reverse transcriptase PCR, where WT1 is screened (see AAT97852-68) as CC a breakpoint locus because of its involvement in Wilms' tumour, which CC shares some histopathologic features of desmoplastic small round cell CC (DSRC) tumours studied and in none of 4 other tumours. DSRC cumours are associated with translocation of the EWS gene.

CC oligonucleotides based on the AAT97863 are used in a method for the CC diagnosis of DSRC tumours in patients. The method comprises detecting a nucleic acid molecule encoding a chimeric EWS-WT1 protein in a sample CC from the subject, where positive detection indicates the presence of a

Sequence 365 æ

```
Ś
                                                  片
                                                                            S
                                                                                                         문
                                                                                                                                                              닭
                                                                                                                                                                                      8
                                                                                                                                                                                                                                            S
片
                  ঠ
                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                        Matches 265;
                                                                                                                                                                                                                                                                                       Query Match
Best Local
                        241
                                                   181
                                                                                                         121
241
                                                                             181
                                                                                                                                   121
                                                                                                                                                              61
                                                                                                                                                                                        61 YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                        Similarity
               PPQTGSYSQAPSQYSQQSSSYGQQS
                                                   MOPVTAPPSYPPTSYSSTOPTSYDOSSYSOONTYGOPSSYGOOSSYGOOPPTSY
                                                                     MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                          QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                              QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                     MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                               YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
PPQTGSYSQAPSQYSQQSSSYGQQS
                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                       39.1%;
                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                       Score 1420; DB 2;
Pred. No. 6.9e-80;
                                                                                                                                                                                                                                                                          Mismatches
                        265
                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                  Length 365;
                                                                                                                                                                                                                                                                          <u>,,</u>
                                                                                                                                                                                                                                                                          Gaps
                                                   240
                                                                                240
                                                                                                          180
                                                                                                                                     180
                                                                                                                                                               120
                                                                                                                                                                                           120
                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                          0
```

ADI26113

standard; protein; 518 Š

ADI26113

22-APR-2004 (first entry)

Human protein that promotes STAT6 activation #39.

RESULT 14
ADI26113
ID ADI26
AC ADI26
AC ADI26
AC ADI26
XX Human
DE Human
KW immun
KW immun
KW immun
KW immun
KW immun
KW epsi immunogen, STAT6 activation, allergy, inflammation, autoimmune disease diabetes, hyperilpidaemia, infection, cancer, Th1 hyperactive disease; rheumatoid arthritis, osteoarthritis, systemic lugus crythematosus; sepsis; asthma; allergic rhinitis; ischaemic heart disease; subarachnoid human; signal transducer and activator of transcription 6; STAT6; haemorrhage; viral hepatitis; AIDS disease;

sapiens

۲,

```
ક
                                                                                                                                                                                             밁
                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                 Ş
                                     밁
                                                                        S
                                                                                                                    밁
                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to a purified protein promoting signal transducer CC and activator of transcription 6 activation (STAT6). The protein is CC useful for the producing an antibody, which involves administering the CC protein or its epitope-bearing fragments to a non-human animal as an CC antigen. The nucleic acid is useful for diagnosing a disease or CC susceptibility to a disease related to expression or activity of the CC protein. A transformant expressing the protein is useful for screening CC compounds which inhibit or promote STAT6 activation. A transformant CC composition. Compositions, antibodies and antisense molecules are useful CC composition. Compositions, antibodies and antisense molecules are useful CC for the treating a disease associated with STAT6 activation such as allorgic diseases, inflammation, autoimmune diseases, diabetes, CC hyperlipidaemia, infections disease and cancers. Compositions are useful CC for treating disease associated with STAT6 activation and/or prevention CC arthritis, osteoarthritis, systemic lupus erythematosus, sepsis, asthma, CC allergic rhinitis, ischaemic heart diseases, subarachnoid haemorrhage, CC viral hepatitis and AIDS. The protein has efficient promoting STAT6 activation or inhibition of STAT6. The present sequence represents the CC activation or inhibition of STAT6. The present sequence represents the CC amino acid sequence of a human protein which promotes STAT6 activation.
                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 301; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUN-2002; 2002JP-00164257.
06-JUN-2002; 2002US-0385912P.
26-DEC-2002; 2002JP-00377326.
27-DEC-2002; 2002US-0436467P.
15-MAY-2003; 2003JP-00137505.
16-MAY-2003; 2003US-0470836P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New signal transducer and activator of transcription 6 activation promoting purified protein, for diagnosing and treating disease associated with activation/inhibition of transcription factor e.g. diabetes and cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; SEQ ID NO 78; 1368pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sugahara T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (ASAH ) ASAHI KASEI KK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2004-122214/12.
235 QPPTSYPPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSM 294
                                                                                                                                                       118 YGTQBAYBAYGQQBAATAPTRPQDGNKFTETSQBQSTGGYNQPSLGYGQSNYSYBQVPG
                                                                                                                                                                                               49 GYGQSSYGSSYGQTQNTGYGTQSAP-----QGYGSTGGYG------SSQSSQSS
                                                                                                                                                                                                                                      60 TYGQTAYATSYGQPP-TGYTTPTAPQAYSQPVQGYG-TGAYDTTTATVTTTQASYAAQSA 117
                                                                                                                                                                                                                                                                                                                   1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYA-QTTQAYGQQSYGTYGQPTDVSYTQAQTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADI26112.
                                                                          SYPMQPVTAPPSYPPTSYSSTQPTSYDQSYSQQNTYGQPSS--YGQQSSY-GQQSSYGQ
                                                                                                                                                                                                                                                                              MASNDYT----QQATQSYGAYPTQPGQGYSQQSSQPYGQQSYSGYGQSAD-----TS
                                                                                                                    YGQQSSYPGYGQQPA------PSSTSGSYG--
                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                           ă,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mateuda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2003WO-JP007123
                                                                                                                                                                                                                                                                                                                                                             35.5%; Score 1290; DB 8;
43.9%; Pred. No. 1.1e-71;
tive 59; Mismatches 128;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Honda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Muramatsu
                                       SOSSSYGOPOSGGYGOOSGYGGOOOSYGO
                                                                                                                                                                                                                                                                                                                                                             128; Indels 198;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ishizawa
                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                         177
                                                                                                                                                                                                                                                                                                                       59
                                       146
                                                                            234
                                                                                                                                                                                                                                                                                48
                                                                                                                      116
                                                                                                                                                                                                   91
```

Tang YT, Ma Y, Z Xue AJ,

Zhou Ren ্ম

ž

R, Y; Wang

ZW;

N-PSDB; AAK51488

2001-476283/51.

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뫉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                             01-SEP-2000;
15-SEP-2000;
20-OCT-2000;
30-NOV-2000;
                                                                                                                                                        03-FEB-2000; 2000US-00496914.
27-APR-2000; 2000US-00560875.
20-UUN-2000; 2000US-00598075.
19-UUL-2000; 2000US-00620325.
                                                                                                                                                                                                                                                                                                        Human; cytokine; cell proliferation; cell differentiation; gene therapy; vaccine; peptide therapy; stem cell growth factor; haematopoiesis; tissue growth factor; immunomodulatory; cancer; leukaemia; nervous system disorder; arthritis; inflammation.
                                                                                                                                                                                                                05-FEB-2001; 2001WO-US004098
                                                                                                                                                                                                                                        09-AUG-2001
                                                                                                                                                                                                                                                             WO200157190-A2
                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                 Human protein SEQ ID NO 1017.
                                                                                                                                                                                                                                                                                                                                                                                        06-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                              AAM78355
                                                                                                                                                                                                                                                                                                                                                                                                                                  AAM78355 standard;
                                                                                        (HYSE-) HYSEQ INC.
                                         YT, Liu C, Drmanac F
, Zhao QA, Wang D, V
AJ, Yang Y, Wejhrman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  295 SGPDNRGRGRGGF-----DRGGMSRG-------GRGGGRGGMGSAG--ERGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RRGGRGGPGKMD-KGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGRCGLMDRGGPCGMFRGGRCGDRGGPRGGPRGGP-GMDRGGFCGGRRGGPGGPPGPLMEQMGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGQPMINLYTDRETGKLKGEATVSFDDPPSAKAAIDWFDGKEFSGNPIKVSFATRRADFN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QSSYNPPQ--GYGQ-QNQYNSSSGGGGGGGG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----GPGKMDSRGEHRODRRERPY 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGÓORAGDWKCPNPTCENMNFSWRNECNÓCKAPKPDG----PGGGPGGSHMGGNYGDDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FNKFGGPRDQGSRHD----SEQDNSDNNTIFVQGLGENVTIESVADYFKQIGIIKTNKK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMNKR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RGRGG-YDRGG----YR-GRGGDRGGFRGGRGGGDRGGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               --RGGGNGRGGRG----RGGPMGRGGYGGG----GSGGGGRGGFPSGG------GG
                                                                                                             ; 2000US-00654936.
; 2000US-00663561.
; 2000US-00693325.
; 2000US-00728422.
                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                      Drmanac RT, ...
ng D, Wang J
                                                                                                                                                                                                                                                                                                                                                                                                                                  protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                   526
                                            Asundi V, Zh
g J, Zhang J,
Goodrich R;
                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -GNYGODOSSMSGGGGGGGY 194
                                                        u C,
Chen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    254
```

Nucleic acids encoding polypeptides with cytokine-like activities, useful in diagnosis and gene therapy. Claim 20; Page 3253-3254; 6221pp; English.

The invention relates to polynucleotides (AAK51456-AAK53435) and the encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to cytokine, cell proliferation or cell differentiation or which may induce production of other cytokines in other cell populations. The polynucleotides and polypeptides are useful in gene therapy, vaccines or peptide therapy. The polypeptides have various cytokine-like activities, e.g. stem cell growth factor activity, haematopoiesis regulating activity, tissue growth factor activity, immunomodulatory activity and activity inhibit activity and may be useful in the diagnosis and/or received. sequence listing were missing at the time of publication treatment of cancer, leukaemia, nervous system disorders, arthritis and inflammation. Note: Records for SEQ ID NO 2110 (AAK52581), 2111 (AAK52582) and 3666 (AAM80020) are omitted as the relevant pages from the

Sequence 526 AA;

Length 526;

S 밁 á S 문 S S 밁 밁 δ 밁 ঠ 片 Ś 용 용 Ś 밁 á 밁 श् Query Match
Best Local Similarity
Matches 301; Conserv 485 591 438 534 391 474 338 414 TVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGG 223 GGGGGGGGYNRSSGGYEPRGRGGGRGGRGGRGGSDRGGFNKFGGFRDQGSRHD----S 298 DNRGRGRGGFDR--GGMSRGGRGGGGGGGGAG--ERGGFNKPGGPMDEGPDLDLGPPVD 173 GG-----GNYGQDQSSMSSGGGSGGGYGNQDQSGGGGSGGYGQQDRG----GRGRGGSG-238 TSYPPOTGSYSOAPSOYSOOSSSYGOOSSFRODHPSSMGVYGOESGGFSGPGENRSMSGP 297 129 178 SYPMOPVTAPPSYPTSYSSTOPTSYDOSSYSOONTYGOPSSYGOOSSYGOOSSYGOOPP 237 118 YGTQPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPG 177 91 49 GYGQSSY-SSYGQSQNTGYGTQSTP-----QGYGSTGGYG-----SSQSSQSS 60 TYGQTAYATSYGQPP-TGYTTPTAPQAYSQPVQGYG-TGAYDTTTATVTTTQASYAAQSA 117 1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYA-QTTQAYGQQSYGTYGQPTDVSYTQAQTTA 59 RQERRDRPY 656 FSWRNECNOCKAPKPDG-----PG----FAWRTECNOCKAPKPEGFLPPPPPPPPGGDRGRGGPGGMR-GGRGGLMDRGGPGGMFRG--PGGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQN TVSFDDPPSAKAAIDWFDGKEFSGNPIKVSFATRRADFN--RGGGNGRGGRG-----RGG YGQQSSYPGYGQQPA----------PSSTSGSYGSSS---QSSSYGQPQ-SG MASNDYT----QQATQSYGAYPTQPGQGYSQQSSQPYGQQSYSGYSQSTD-----TS -GRGGDRGGFRGGR-GMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMD-KGEH 647 Conservative 35.3%; SYGG----QQQSYGQQSYNPPQGYGQQNQYNSSSGGGGGGG 59; Score 1282; DB 4; |Pred. No. 3.6e-71; 59; Mismatches 153; -GGPGGSHMGGNYGDDRRGGRGGYDRGGY 153; Indels 156; GPGKMDSRGEH Gaps 337 172 517 590 437 533 390 473 413 277 353 222 90 48 484

RODRRERPY 526

Search completed: February 18, 2005, 15:09:03 Job time : 175 secs

Copyright

GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.

```
Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                         Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                3633
3178.5
3178.5
1420
1420
1337
1282
   484
470.5
453
                                                                                                                                                                                                                                                                                                                                                                                                                                         Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein search,
                                                                                                                                                                                                                                                                                                                                                                                                                                       Query
Match
                                                                                                                                                                       100.0
100.0
87.5
87.5
87.5
39.1
39.1
39.1
35.3
35.3
113.0
113.0
110.4
110.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BLOSUM62
Gapop 10.0 , Gapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-791-017A-2
3633
1 MASTDYSTYSQAAAQQGYSA......GGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pebruary 18, 2005, 14:59:05; Search time 47 Seconds (without alignments) 1041.910 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               513545 seqs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Issued_Patents AA:*

1: /cgn2_6/ptodata/1/laa/5A_COMB.pep:*

2: /cgn2_6/ptodata/1/laa/5B_COMB.pep:*

3: /cgn2_6/ptodata/1/laa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/laa/6B_COMB.pep:*

5: /cgn2_6/ptodata/1/laa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/1/laa/backfiles1.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
   using
                                                                                                                                                                                                                                                                                                                                                                                                                                           멂
US-08-343-443B-2
US-09-214-554A-4
US-09-518-092-1250
US-09-949-016-10914
US-09-949-016-10915
US-08-437-027-21
US-08-437-027-21
US-08-437-027-21
US-08-943-092-1080
US-09-949-016-7825
US-09-949-016-7825
US-09-949-016-7825
US-09-949-016-7825
US-09-949-03-825-21
US-09-951-825-72
US-09-101-928B-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    513545
Sequence 2, Appli
Sequence 4, Appli
Sequence 10915, A
Sequence 10915, A
Sequence 21, Appl
Sequence 20, Appl
Sequence 1080, Ap
Sequence 1080, Ap
Sequence 107, App
Sequence 21, Appl
Sequence 22, Appl
Sequence 23, Appl
Sequence 24, Appl
Sequence 25, Appl
Sequence 26, Appl
Sequence 27, Appl
Sequence 27, Appl
Sequence 28, Appl
Sequence 29, Appl
Sequence 20, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                       Description
```

22 334.5 9.2 6.3 1 US-08-642-255-73 30 - 334 9.2 1739 4 US-09-795-061-2 31 33.5 9.2 714 3 US-08-556-978B-61 32 333.5 9.2 714 3 US-08-556-978B-61 33 33 9.2 1464 4 US-09-31-347C-21 34 331 9.1 1057 3 US-09-31-347C-21 35 331 9.1 1057 3 US-09-931-820-1 36 330 9.1 1806 4 US-09-919-497-56 37 329 9.1 822 3 US-09-795-061-4 38 327.5 9.0 1060 3 US-09-919-497-56 327 9.0 492 4 US-09-219-849-49 328 327 9.0 1060 3 US-08-931-820-3 329 327 9.0 1060 3 US-08-931-820-3 329 9.1 822 3 US-08-931-820-3 329 9.1 829 105-08-931-821-18 40 326.5 9.0 1017 4 US-08-468-996-12 41 324.5 8.9 1341 3 US-09-500-811-18 42 324.5 8.9 1341 3 US-09-500-811-18 43 324.5 8.9 1341 3 US-09-500-811-18 44 324.5 8.9 1341 3 US-09-500-811-18 45 322 8.9 1179 4 US-09-949-016-7088	334.5 9.2 133 333.5 9.2 714 3 333.5 9.2 714 3 333 9.1 1057 3 331 9.1 1745 4 331 9.1 1806 4 339 9.1 1806 4 329 9.1 1802 3 327.5 9.0 192 4 327.5 9.0 192 4 328.5 8.9 1341 3 324.5 8.9 1341 3 324.5 8.9 1341 3 324.5 8.9 1341 3 324.5 8.9 1341 3								4.4									
9.2 633 1 9.2 714 3 9.2 1744 3 9.2 1464 4 9.1 1056 4 9.1 1806 4 9.1 1802 3 9.0 1017 4 9.0 1341 3 8.9 1341 3 8.9 1341 3	9.2 6.33 1 US-08-642-255-73 Sequence 9.2 1739 4 US-09-795-061-2 Sequence 9.2 714 3 US-08-556-978B-61 Sequence 9.2 714.3 US-09-795-061-0 Sequence 9.2 1464 4 US-09-31-347C-21 Sequence 9.1 1057 3 US-08-931-820-1 Sequence 9.1 1745 4 US-09-795-061-4 Sequence 9.1 1806 4 US-09-795-061-4 Sequence 9.1 1806 4 US-09-919-497-56 Sequence 9.1 822 3 US-09-219-849-49 Sequence 9.1 823 US-08-931-820-3 Sequence 9.0 1060 3 US-08-931-820-3 Sequence 9.0 1060 3 US-08-931-821-8 8.9 1341 3 US-08-96-12 Sequence 8.9 1341 3 US-08-96-18 Sequence 8.9 1341 3 US-09-500-811-18 Sequence 8.9 1341 3 US-09-500-811-18 Sequence 8.9 1341 3 US-09-548-608-18 Sequence 8.9 1341 3 US-09-548-608-18 Sequence 8.9 1341 3 US-09-548-608-18 Sequence	ű	4	ü	2	Ξ	5	ĕ	æ	7	õ	ັດ	4	ũ	ະ	Ξ	õ	9
633 1 714 3 714 3 714 3 714 714 714 714 714 714 714 714 714 714	633 1 US-08-642-255-73 Sequence 1739 4 US-09-795-061-2 Sequence 714 3 US-09-795-061-2 Sequence 714 3 US-09-247-806-10 Sequence 174 3 US-09-247-806-10 Sequence 174 4 US-09-331-347C-21 Sequence 1745 4 US-09-331-820-1 Sequence 1745 4 US-09-795-061-4 Sequence 1745 4 US-09-795-061-4 Sequence 1745 4 US-09-795-061-4 Sequence 1745 4 US-09-319-497-56 Sequence 1745 4 US-08-961-12 Sequence 1745 4 US-08-468-996-12 Sequence 1741 3 US-08-963-825-18 Sequence 1741 3 US-08-963-825-18 Sequence 1741 3 US-09-500-811-18 Sequence 1741 3 US-09-500-811-18 Sequence 1741 3 US-09-548-608-18 Sequence 1741 3 US-09-548-608-18 Sequence 1754 US-09-549-016-7088 Sequence 1754 US-09-549-016-7088 Sequence 1755 US-09-549-016-7088 Sequence 1755 US-09-549-016-7088 Sequence	322	324.5	324.5	324.5	324.5	326.5	327	327.5	329	330	331	331	333	333.5	333.5	- 334	334.5
— בה טוט בה בה טוט בה בה טוט טוט בה 	1 US-08-642-255-73 Sequence 4 US-09-795-661-2 Sequence 3 US-09-247-806-10 Sequence 4 US-09-331-347C-21 Sequence 4 US-09-331-347C-21 Sequence 4 US-09-331-347C-21 Sequence 5 US-09-31-820-1 Sequence 6 US-09-219-849-49 Sequence 7 US-09-219-849-49 Sequence 7 US-09-219-849-49 Sequence 7 US-08-468-996-12 Sequence 7 US-08-468-996-12 Sequence 7 US-08-63-825-18 Sequence 7 US-08-63-825-18 Sequence 7 US-09-500-811-18 Sequence 7 US-09-500-811-18 Sequence 7 US-09-548-608-18 Sequence 7 US-09-949-016-7088 Sequence	8.9	8.9	8.9	8.9	8.9	9.0	9.0	9.0	9.1	9.1	9.1	9.1	9.2	9.2	9.2	9.2	9.2
1 US-08-642-255-73 4 US-09-795-061-2 3 US-08-556-978B-61 3 US-09-247-806-10 4 US-09-331-347C-21 3 US-08-931-820-1 4 US-09-795-061-4 4 US-09-795-061-4 5 US-09-919-497-56 3 US-09-919-497-56 3 US-08-931-820-3 4 US-08-96-12 4 US-08-468-996-12 5 US-08-468-996-12 6 US-08-468-996-12 7 US-08-468-996-12 8 US-09-500-811-18 8 US-09-500-811-18 8 US-09-500-811-18	-08-642-255-73 Sequence -09-795-061-2 Sequence -08-556-978B-61 Sequence -09-247-806-10 Sequence -09-31-347C-21 Sequence -09-31-820-1 Sequence -09-919-497-56 Sequence -09-919-497-56 Sequence -09-919-497-56 Sequence -09-31-820-3 Sequence -08-468-996-10 Sequence -08-468-996-12 Sequence -08-468-996-10 Sequence -08-963-825-18 Sequence -09-548-608-18 Sequence -09-548-608-18 Sequence -09-548-608-18 Sequence	1179	1341	1341	1341	1341	1017	492	1060	822	1806	1745	1057	1464	714.	714	1739	633
US-08-642-255-73 US-09-795-061-2 US-08-556-978B-61 US-09-247-806-10 US-09-331-347C-21 US-08-931-820-1 US-09-919-497-56 US-09-919-497-56 US-08-931-820-3 US-08-96-12 US-08-96-12 US-08-96-12 US-08-96-12 US-08-96-13 US-08-68-18 US-09-570-573-18 US-09-590-811-18 US-09-549-608-18 US-09-549-608-18	-08-642-255-73 Sequence -09-795-061-2 Sequence -08-556-978B-61 Sequence -09-247-806-10 Sequence -09-31-347C-21 Sequence -09-31-820-1 Sequence -09-919-497-56 Sequence -09-919-497-56 Sequence -09-919-497-56 Sequence -09-31-820-3 Sequence -08-468-996-10 Sequence -08-468-996-12 Sequence -08-468-996-10 Sequence -08-963-825-18 Sequence -09-548-608-18 Sequence -09-548-608-18 Sequence -09-548-608-18 Sequence	4.	w	w	w	w	4	4	w	w	4	4.	w	4	ω	w	4	_
	Sequence	US-09-949-016-7088	-09-548-608	US-09-570-573-18	-09-500-811	US-08-963-825-18	US-08-468-996-10	US-08-468-996-12	US-08-931-820-3	US-09-219-849-49	US-09-919-497-56	US-09-795-061-4	US-08-931-820-1	US-09-331-347C-21	US-09-247-806-10	US-08-556-978B-61	US-09-795-061-2	US-08-642-255-73

ALIGNMENTS

			RES US-
APPLICATION UNTA: APPLICATION UNMBER: FR 92/06123 FILING DATE: 20-MAY-1992 ATTORNEY/AGENT INFORMATION: NAME: Weiser, Gerard J. REGISTRATION UNMBER: 19,763 REFERENCE/DOCKET NUMBER: 989.6121P TELECOMMUNICATION INFORMATION: TELEPHNE: 215-875-8393 TELEPAX: 215-875-8394 INFORMATION FOR SEQ ID NO: 2: SEQUENCE CHARACTERISTICS:	ZIP: 19102 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: AEDIT 1.0 DOS text editor CURRENT APPLICATION DATA; APPLICATION NUMBER: US/08/343,443B FILING DATE: 18-NOV-1994 CLASSIFICATION DATA: APPLICATION DATA: APPLICATION UMBER: PCT/FR93/00494 FILING DATE: 19-MAY-1993	Peter, Plouga Pl	RESULT 1 US-08-343-443B-2 ; Sequence 2, Application US/08343443B ; Patent No. 5968734 ; GENERAL INFORMATION: ; APPLICANT: Aurias, Alain ; APPLICANT: Delattre, Olivier ; APPLICANT: Desmaze, Chantal ; APPLICANT: Desmaze, Chantal

Length

0

Gaps

```
GENERAL INFORMATION:

APPLICANT: Sharp, Phillip A.

APPLICANT: Sharp, Phillip A.

APPLICANT: Sharp, Phillip A.

APPLICANT: Sharp, Phillip A.

TITLE OF INVENTION: TAT-SF: Cofactor For Stimulation Of

TITLE OF INVENTION: Elongation By HIV-1 TAT

FILLE REFERENCE: MOSS6/7042

CURRENT APPLICATION NUMBER: US/09/214,564A

CURRENT FILING DATE: 1999-08-18

PRIOR APPLICATION NUMBER: US 60/021,218

PRIOR APPLICATION NUMBER: US 60/033,152

PRIOR FILING DATE: 1996-07-03

PRIOR FILING DATE: 1997-07-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; LENGTH: 656 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-343-443B-2
                                                                                                                                                                                                                                                                                                                  RESULT 2
US-09-214-564A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 100.0%; Score 3633; DB 2; Best Local Similarity 100.0%; Pred. No. 8.4e-243; Matches 656; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                            Sequence 4, Application US/09214564A Patent No. 6150515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 MQPYTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 QPAYPAYGQQPAATAPTRPQDGNKFTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              _
                                                                                                                                                                                                                                                                                                                                                                                                                 GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NQCKAPKPEGFLPPPPFPPPGGDRGRGGFGGMRGGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGFGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SATYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GRGRGGFDRGGMSRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGFGENRSMSGFDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGASYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                 ဝှု
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                              656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                      ; Sequence 1250, Application US/09538092
; Patent No. 6753314
; GENERAL INFORMATION:
APPLICANT: Giot, Loic
APPLICANT: Mansfield, Traci A.
TITLE OF INVENTION: Protein-Protein Complexes and
FILE REFERENCE: 15966-542
; CURRENT APPLICATION NUMBER: US/09/538,092
; CURRENT FILING DATE: 2000-03-29
; PRIOR APPLICATION MUMBER: 60/127,352
PRIOR PILLING DATE: 1999-04-01
                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; TYPE: PRT
; ORGANISM: Homo
US-09-214-564A-4
                                                                                                                                                                                                                                                                              US-09-538-092-1250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 656; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS:
SOFTWARE: FASTSEQ for
SEQ ID NO 4
LENGTH: 656
  PRIOR APPLICATION NUMBER: 60/178,965
PRIOR FILING DATE: 2000-02-01
NUMBER OF SEQ ID NOS: 1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGPMGRMGGRGGPRGGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGFMDEGFDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                        GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                              GGRGMDRGGFGGGRRGGPGGPGGPPGMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                   NOCKAPKPEGFLPPPPPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMPRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NQCKAPKPEGFLPPPPPPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SATYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMTHTYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOPVTAPPSYPPTSYSSTOPTSYDOSSYSOONTYGOPSSYGOOSSYGOOSYGOOPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
Windows
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              %; Score 3633; I
%; Pred. No. 8.40
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8.4e-243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                           Method
```

of.

656 656

```
Sequence 10914, Application US/09949016

PACENT NO. 6812339

GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSITITE OF INVENTION: WITH HUMAN DISEASE, METHODS OF PILE REFERENCE: CL001307

PILE REFERENCE: CL001307

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20
                                                                                                                                                                                                   RESULT 4
US-09-949-016-10914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  श्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       , NAME/KEY: misc_feature
, LOCATION: (0)...(0)
, OTHER INFORMATION: Polypeptide Accession Number Q01844
US-09-538-092-1250
                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                         ક
                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 656; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: CuraPatSegFormatter Version
SEQ ID NO 1250
LENGTH: 656
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                               109
                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MQPVTAPASYPATSYSSTQATSQSYSSQSYSSQQSYSGQQSYGQQSYGQQSPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                             GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                  GGRGMDRGGFGGGRRGGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                       NQCKAPKPEGFLPPPFPPPGGDRGRGGFGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                      GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SALYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQFMIHIYLDKETGKFKGDATVSYEDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PPOTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 3633; DB 4;
100.0%; Pred. No. 8.4e-243;
tive 0; Mismatches 0;
                                                                                            ASSOCIATED
OF DETECTION AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 656;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                               656
                                                                                              THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

; PRIOR PPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

; PRIOR FILING DATE: 2000-09-08

; NUMBER OF SEQ ID NOS: 207012

; SOFTWARE: PastSEQ for Windows Version .

; SEQ ID NO 10914

; LENGTH: 591
                                                                                                                                                                                  RESULT 5
US-09-949-016-10915
                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; TYPE: PRT
; ORGANISM: Human
US-09-949-016-10914
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
Sequence 10915, Application US/09949016

Sequence 10915, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION .

FILE REFERENCE: CLUO1307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 582;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                476
                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                     416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             129
                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                           GGRGMDRGGFGGGRRGGGPGGPPGFLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                  NQCKAPKPEGFLPPPPPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                          GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCENPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                          GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                     GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PPQTGSYSQAPSQYSQQSSSYGQQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOPVTAPPSYPPTSYSSTOPTSYDOSSYSOONTYGOPSSYGOOSSYGOOPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -----PMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 3178.5; DB 4;
Pred. No. 1.7e-211;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73;
                                                                           AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                              656
```

THEREOF

600 475 540 415 480 355 420 295 360 273 300 248 240 188 180 128 120 89 60 ۲,

```
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.
; SEQ ID NO 10915
; LENGTH: 591
                                                                                                                                                                        RESULT 6
US-08-437-027-21
                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; ORGANISM: Human
US-09-949-016-10915
                                                                                                                                 Sequence 21, Application US/08437027 Patent No. 5670317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 87.5%;
Best Local Similarity 88.7%;
Matches 582; Conservative
              GENERAL INFORMATION:
APPLICANT: Landanyi, Marc
APPLICANT: Gerald, William
TITLE OF INVENTION: A DIAGNOSTIC TEST FOR TEST
TITLE OF INVENTION: SMALL ROUND CELL TUMOR
NUMBER OF SEQUENCES: 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                      541 NQCKAPKPEGFLPPFFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                             416
                                                                                                                                                                                                                                                                           601 GGRGMDRGGFGGGRRGGPGGPPGPIMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      356 PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241 PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 MQPYTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQSPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               129 QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            69 YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                 GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                             GGPMGRMGGRGGDRGGPPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQFMIHIYLDKETGKFKGDATVSYEDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SAIYVQGLNDSVTLDDLADFFKQCGVVKWNKRTGQPMIHIYLDKETGKFKGDATVSYEDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOPVTAPPSYPPTSYSSTOPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                     GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY 591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PPQTGSYSQAPSQYSQQSSSYGQQR------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 3178.5; DB 4;
Pred. No. 1.7e-211;
0; Mismatches 1;
                                                      FOR THE DESMOPLASTIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        591;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                             475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           273
```

```
US-08-437-027-20
                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; MOLECULE TYPE: protein US-08-437-027-21
                                                                                                                           Sequence 20, Application US/08437027
Patent No. 5670317
GENERAL INFORMATION:
APPLICANT: Landanyi, Marc
APPLICANT: Gerald, William
TITLE OF INVENTION: A DIAGNOSTIC TEST FOR THE DESMOPLASTIC
TITLE OF INVENTION: SMALL ROUND CELL TUMOR
NUMBER OF SEQUENCES: 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 212-391-0525
INFORMATION FOR SEQ ID NO: 21
SEQUENCE CHARACTERISTICS:
LENGTH: 362 amino acide
TYPE: amino acid
STRANDEDNESS: unknown
TOPOLOGY: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 265;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: 110
STREET: New York
STATE: New York
STATE: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: White, John P
REGISTATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 46.
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-278-0400
                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: Cooper & Dunham LLP
STREET: 1185 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOPTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/437,027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                       PPQTGSYSQAPSQYSQQSSSYGQQS
                                                                                                                                                                                                                                                                                                                                                                                          PPQTGSYSQAPSQYSQQSSSYGQQS 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOPVTAPPSYSPOORSSTOOTSYSOONTYCOPSSYGOOSSYGOOPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                 MOPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B: Cooper & Dunham LLP
1185 Avenue of the Americas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               39.1%; Score 1420; DB 1; 100.0%; Pred. No. 2.2e-90; ative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               46416/JPW/CCA
                                                                                                                                                                                                                                                                                                                                                         265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 362;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
```

COMPUTER READABLE FORM:

```
US-09-949-016-7825

Sequence 785, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THER FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOPTWARE: FASTSEQ for Windows Version 4.0

SEQ ID NO 7825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AFFLIANCE
FILING DATE:
FILING DATE:
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: White, John P
REGISTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 46416
TELECOMUNICATION INFORMATION:
TELEPHONE: 212-278-0400
TELEFAX: 212-391-0525
INFORMATION FOR SEQ ID NO: 20:
SEQUENCE CHARACTERISTICS:
LENGTH: 365 SMINO BCIDS
LENGTH: 365 SMINO BCIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS: unknown
TOPOLOGY: unknown
MOLECULE TYPE: protein
US-08-437-027-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 265; Conserv
LENGTH: 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241 PPQTGSYSQAPSQYSQQSSSYGQQS 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPSTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PPQTGSYSQAPSQYSQQSSSYGQQS 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOPVTAPPSYPPTSYSSTOPTSYDOSSYSOONTYGOPSSYGOOSSYGOOSSYGOOPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   39.1%; Score 1420; DB 1; llarity 100.0%; Pred. No. 2.2e-90; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US/08/437,027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       46416/JPW/CCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 365;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                      THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
```

```
S
                                                                            문
                                                                                                             S
                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                ; ORGANISM: Homo sapiens
; PEATURE:
; NAME/KEY: misc_feature
; LOCATION: (0)...(0)
; OTHER INFORMATION: Polypeptide Accession Number P35637
US-09-538-092-1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-538-092-1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-949-016-7825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1080, Application US/09538092 Patent No. 6753314 GENERAL INFORMATION:
                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 301; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS: 1387
SOFTWARE: CuraPatSeqFormatter Version 0.9
SEQ ID NO 1080
LENGTH: 526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Giot, Loic
APPLICANT: Mansfield, Traci A.
APPLICANT: Mansfield, Traci A.
TITLE OF INVENTION: Protein-Protein Complexes and Method PILE REFERENCE: 15966-542
CURRENT APPLICATION NUMBER: US/09/538,092
CURRENT FILING DATE: 2000-03-29
PRIOR APPLICATION NUMBER: 60/127,352
PRIOR APPLICATION NUMBER: 60/178,965
PRIOR APPLICATION NUMBER: 60/178,965
PRIOR APPLICATION NUMBER: 60/178,965
PRIOR PILING DATE: 2000-02-01
                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        339 PMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMI
                                     118 YGTQPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPG 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           399 HIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGL
                                                                                                         60 TYGQTAYATSYGQPP-TGYTTPTAPQAYSQPVQGYG-TGAYDTTTATVTTTQASYAAQSA 117
                                                                                                                                                                                                                                     301; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                          49 GYGQSSY-SSYGQSQNTGYGTQSTP-----QGYGSTGGYG-----SSQSSQSS
                                                                                                                                                                             1 MASTDYSTYSQAAAQQGYSAYTAQFTQGYA-QTTQAYGQQSYGTYGQPTDVSYTQAQTTA
                                                                                                                                                         1 MASNDYT----QQATQSYGAYPTQPGQGYSQQSSQPYGQQSYSGYSQSTD-----TS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHR 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRTFDVTNGRKKRR 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HTYLDKETRKPKGDATVSCEDSPTAKAAVEWFDGKDFQGSKLKVSLARKRPPVNSMQGGM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDNVTLDDLVDFFKQCGVVKMNKRTEQPMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PGKMDKGEHRQERR 652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MDHGGPGGMFRGGCGRDRSGFRGGWAWTEVA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PPREGRGMPPPLCGGPGGPGSPGGPMGHMGGRGGDRGGLPPRGPQGSRGNTSGGGNVQHQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              36.8%; Score 1337; DB 4; 78.3%; Pred. No. 9.6e-85; tive 13; Mismatches 37;
                                                                                                                                                                                                                                                      35.3%; Score 1282; DB 4;
45.0%; Pred. No. 1.1e-80;
                                                                                                                                                                                                                                     59;
                                                                                                                                                                                                                                     Mismatches 153;
                                                                                                                                                                                                                                                                           DB 4;
PSSTSGSYGSSS---QSSSYGQPQ-SG
                                                                                                                                                                                                                                                                        Length 526;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 306;
                                                                                                                                                                                                                                     Indels 156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -----LVEE---DKVALGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of Using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18;
                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    638
                                                                            90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             249
                                                                                                                                                           48
                                                                                                                                                                                                59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             398
                                                                                                                                                                                                                                       30;
```

```
RESULT 10
US-08-343-443B-107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 107, Applicate Patent No. 5968734
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: AEDIT 1.0 DOS text editor
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/343,443B
FILING DATE: 18-NOV-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                      COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                     STREET: 230 - CITY: Philadelphia
                                                                                                                                                                                                                                                                                           COUNTRY: U
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          354 PDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             238 TSYPPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQBSGGFSGPGENRSMSGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07, Application US/08343443B
5968734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -GRGGDRGGFRGGR-GMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMD-KGEH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FAWRTECNOCKAPKPEGFLPPPFPPPGGDRGRGGFGGMR-GGRGGLMDRGGPGGMFRG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PGGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TVSFDDPPSAKAAIDWFDGKEFSGNPIKVSFATRRADFN--RGGGNGRGGRG-----RGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TVSYEDPPTAKAAVEWPDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EQDNSDNNTIFVQGLGENVTIESVADYFKQIGIIKTNKKTGQPMINLYTDRETGKLKGEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGGGGGGYNRSSGGYEPRGRGGGRGGRGGRGGSDRGGFNKFGGPRDQGSRHD-----S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNRGRGRGGFDR--GGMSRGGRGGGRGGMGSAG--ERGGFNKPGGPMDEGPDLDLGPPVD 353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GG-----GNYGQDQSSMSSGGGSGGGYGNQDQSGGGGSGGYGQQDRG----GRGRGGSG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SYSQQP-----SYGG-----QQQSYGQQQSYNPPQGYGQQNQYNSSSGGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        dadodassadonssados and anados as sold and a second a second and a second a second and a second a second and a second a second and a second and a second and a second and a second a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RGRGGDRGGFRGGRGGGDRGGF----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FSWRNECNQCKAPKPDG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PMGRGGYGGG----GSGGGGRGGFPSGG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RODRRERPY 526
                                                                                                                                                                                                                                                                                                                                                                                                                  3: Weiser & Associates
230 South Fifteenth Street
                                                                                                                                                                                                                                                                                                                             USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ploougastel, Beatrice
Thomas, Gilles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Peter, Martine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Melot,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Delattre, Olivier
Desmaze, Chantal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Zucman, Jessica
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Aurias, Alain
                                                                                                                                                                                                                          Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUCLEIC ACID CORRESPONDING TO A GENE OF CHROMOSOMAL CHROMOSOME 22 INVOLVED IN RECURRENT CHROMOSOMAL TRANSLATIONS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS TUMORS, AND NUCLEIC ACIDS OF FUSION RESULTING FROM SAID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TRANSLOCATIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -PG----GGPGGSHMGGNYGDDRRGGRGGYDRGGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -GGGGGQQRAGDWKCPNPTCENMN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -GPGKMDSRGEH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   222
```

```
Ś
                                                               밁
                                                                                            S
                                                                                                                                밁
                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
밁
                                                                                                                                                                                                                                                                 US-09-919-039-324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-919-039-324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-343-443B-107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Kaser, Matthew
TITLE OF INVENTION: GENES
FILE REFERENCE: PA-0035 US
                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 134; Conser
                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PERL Program
SEQ ID NO 324
LENGTH: 462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 324, Application US/09919039 Patent No. 6727066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/222,113
PRIOR FILING DATE: 2000-07-28
NUMBER OF SEQ ID NOS: 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTOKAME.

NAME: Weiser, Geraru U. 763
REGISTRATION NUMBER: 19,763
REFERENCE/DOCKET NUMBER: 989.
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION THEORY 1015-8383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/919,039
CURRENT FILING DATE: 2002-09-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: 215-875-8394
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                LENGTH: 46
                                                                                                                                                                                                                                                                                             PEATURE: misc feature
                                                                                                                                                                                                                                                                                 OTHER INFORMATION: Incyte ID No. 6727066 1813444CDI
                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 295 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: 1: MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/
FILING DATE: 19-MAY-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    297 PDNRGRGGGFDRGGMSRGGRGGGRGGMG 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   237 PTSYPPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGYYGQBSGGFSGPGENRSMSG
                              118 YGTQPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPG
 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                 49 GYGQSSY-SSYGQSQNTGYGTQSTP
                                                                                            60 TYGQTAYATSYGQPP-TGYTTPTAPQAYSQPVQGYG-TGAYDTTTATVTTTQASYAAQSA 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  , e
                                                                                                                                                              1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYA-QTTQAYGQQSYGTYGQPTDVSYTQAQTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                amino acid
                                                                                                                                MASNDYT----QQATQSYGAYPTQPGQGYSQQSSQPYGQQSYSGYSQSTD-----TS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PTSYPPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSG
YGQQSSYPGYGQQPA-
                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-MAY-1992
                                                                                                                                                                                                               13.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FR 92/06123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PCT/FR93/00494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EXPRESSED IN TREATED HUMAN C3A LIVER CELL CULTURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 107:
                                                                                                                                                                                           25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   989.6121P
                                                                                                                                                                                              Score 470.5; DB 4
Pred. No. 9.7e-25;
5; Mismatches 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 484; DB 2;
Pred. No. 6.7e-26;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  89
-PSSTSGSYGSSS---QSSSYGQPQ-SG
                                                                                                                                                                                                                                 DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 295
                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                  101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                 SSQSSQSS
                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                 59
 126
                                                               90
                                                                                                                                  48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

```
멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-343-443B-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                       US-08-343-443B-7
                                 Query Match
Best Local Similarity
Matches 86; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Zucman, J
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: AEDIT 1.0 DOS text editor CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/343,443B
FILING DATE: 18-NOV-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC-DOS/MS-DOS
COPPENTING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 514
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Weiser & Associates
STREET: 230 South Fifteenth Street
                                                                                                                                                                                                                         TELEPHONE: 215-875-8383
                                                                                                                                                                                                                                                                                                       FILING DATE: 20-MAY-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 98
                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: PCT/
FILING DATE: 19-MAY-1993
                                                                                                                                                                                                                                                                             NAME: Weiser, Gerard
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                         TOPOLOGY:
                                                                                                                                                     LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 129
363 IYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPT 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         228 GGGGYNRSSGGYEPRGRG------GGR-GGRGGMGGS-DRGGFNKFG 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       286 SGPGENRSMSGPDNRGRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPG 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           231 ---SYGQQPP--TSYPPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGF 285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             178 SYPMQPYTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQS-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Philadelphia
                                                                                                                                       amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGNYGQDQSSMSSGGGSGGGYGNQDQSGGGGSGGYGQQDRGRRGRGGSGG-----GGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/08343443B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SYSOOP-----SYGG-----QOOSYGOOQSYNPPOGYGOONQYNSSSGGGGGGG
                                                                                                                                                     86 amino acida
                                                                                                                                                                                                           215-875-8394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Peter, Martine
Ploougastel, Beatrice
Thomas, Gilles
                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zucman, Jessica
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Desmaze, Chantal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Aurias, Alain
                                                                                                                                                                                                                                                                                           Gerard J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TRANSLOCATIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUCLEIC ACID CORRESPONDING TO A GENE OF CHROMOSOMAL CHROMOSOMA 22 INVOLVED IN RECURRENT CHROMOSOMAL TRANSLATIONS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS TUMORS, AND NUCLEIC ACIDS OF FUSION RESULTING FROM SAID
                                                12.5%; Score 453; DB 2;
100.0%; Pred. No. 2.2e-24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Olivier
                                                                                                                                                                                                                                                                                                                                             FR 92/06123
                                                                                                                                                                                                                                                                                                                                                                                                PCT/FR93/00494
                                   0
                                                                                                                                                                                                                                                             989.6121P
                                   Mismatches
                                                                 Length 86;
                                 Indels
                                 0
                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               230
                                 0
                S
                                                   밁
                                                                                 S
                                                                                                                       밁
                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET:
```

```
US-08-963-825-21
                                                                                                                                                                            Matches 184;
                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: Qvist,
APPLICANT: Bonde,
                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 1078 amino aci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                IMMEDIATE SOURCE: CLONE: COLLAGEN ALPHA 1 (III)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/0
FILING DATE: 21-JAN-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-527-7700
TELEPAX: 212-753-6237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: FILING DATE: CLASSIFICATION: 436
                                                                                                                                                                                                                                                                                                     ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Gogoris, Adda C
REGISTRATION NUMBER: 29,714
REFERENCE/DOCKET NUMBER: 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: New York
                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        423 AKAAVEWFDGKDFQGSKLKVSLARKK 448
162 SL----
                                                                  102 TATVTTTQASYAAQSAYGTQPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQP 161
                                                                                                                                         42 GTYGQPTDVSYTQAQTTATYGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTT 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10022
                                                                                                                                                                                                                                                                                                                                                                         amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AKAAVEWFDGKDFQGSKLKVSLARKK 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                236687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Application US/08963825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                805 Third Avenue
                                                                                                                                                                                                                                                                                                                                                                                          1078 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            USA
                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Darby & Darby PC
                                                                                                                                                                                                                                                                                                                                    protein
GYGQSNYSYPQ---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Martin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A Method for Assaying Collagen Fragments
in Body Fluids, A Test Kit and Means for
Method and Use of the Method to Disgnose
Disorders Associated with the Metabolism
                                                                                                                                                                                             10.4%;
                                                                                                      -----GSPGSPGYQGPPGEP--GQAGPSGPPG---PPGAIG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US/08/187,319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US/08/963,825
                                                                                                                                                                                                                                                                                                                                                                                                                             21:
                                                                                                                                                                            34; Mismatches 235;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4305/08701
                                                                                                                                                                                             Score 376.5; DB Pred. No. 8e-18;
                                   -GKDGESGRPGRPGDRGLP---
-VPGSY----
                                                                                                                                                                                                            DB 3;
PMOPVTAPPSYPPTSYSSTQ 199
                                                                                                                                                                                                            Length 1078;
                                                                                                                                                                            Indels
                                   -GPPGIKGPAGIP
                                                                                                                                                                            259;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    r Carrying Out
                                                                                                                                                                          Gaps
                                   110
                                                                                                       75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                            34
```

```
US-09-500-811-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 14
                                                                                                                                                                                                                                                                                                                                                                       Sequence 21, Application US/09500811

Patent No. 6323314

GENERAL INFORMATION:

APPLICANT: Qvist, Per
APPLICANT: Bonde, Martin
TITLE OF INVENTION: A Method for Assaying Collagen Fragments
TITLE OF INVENTION: A Method for Assaying Collagen Fragments
TITLE OF INVENTION: Method and Use of the Method to Diagnose
TITLE OF INVENTION: Disorders Associated with the Metabolism
NUMBER OF ENQUENCES: 21
CORRESPONDENCE ADDRESS: Darby & Darby PC
                                                                        CLASSIFICATION: PRIOR APPLICATION NUMBER:
                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA;
                                   FILING DATE:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                 APPLICATION NUMBER: FILING DATE:
NAME: Gogoris, Adda REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                 ZIP: 10022
                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                           STREET:
                                                                                                                                                                                                                                                                                                                                            CITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         488 RGPQGLQGLPGTGGPPGENEKPGEPGPKGEAGAPGAPGGKGDAGAPGERGPPGLAGAPGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    260 PGLMGARGPPGPAGANGAPGL-RGGAGEPGKNGAKGEPGPRGERGEAGIPGVPGAKGEDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             205 EVGPAGS----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  260 SYGQQSSFRQDHPSSMGVYGQ--ESG--GFSG-----PGENRSMSGPDNRG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             111 GFPGMKGHRGFDGRNGEKGETGAPGLKGENGLPGENGAPGPMGPRGAP-------
                                                                                                                                                                                                                                                                                                 New York
3: New York
GRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RGGAG-PPGPEGGKGAAGPPGPPGAAGTPGLQGMPGERGGLGSPGPKGDKGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RGGRGMDRGGFGGGRRGGPPG----PLMEQMGGRRGGRGGPG-KMDKGE 646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DGAPGKNGERGGPG-GPGPQG------PPGKNGEYGPQGPPGPTGPGGDKGDTGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP----PGGDRGRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GMPPPLRGGPGGPG-----GPMGRMG--GRGGDRGGFPPRGPRGSRG-----NPSGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RGPAGPNGI PGEKGPAGE -----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRG--GLPPREGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KDGSPGDPGANGLPGAAGERGALGS----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGMRG-----GRGGLMDR------GF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PGGPGMRGMPGSPGGPGSDGKPGPPGSQGESGRPGPPG---PSGPRGQPGVMGFPGPKGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ------RGRGGFDRGGMSRGGRGGGMGSAGERGGFNKPGGPMDEGPDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SSOOSAOSAVOSASSOOJAAASTAAOOOSASSOOJASSAOOSASSAOOASAOOSASSOOJASTA
                                                                                                                                                                                                                                                                                                                                                           805 Third Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GERGRPGLPGAAGARGNDGARGSDGQPGPPG-PPGTAGFPGSPG----AKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -PGSNGAPGQRGEPGPQGHAGAQGPPGPPGINGSPGGKGEMGPAGIPGA 259
                                                                                                                                                    US/09/500,811
                                                                          08/187,319
 29,714
                                                                                                                                                                                       Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----RGAPGPAGPRGAAGEPGRDGV
                                                                                                                                                                                       #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                  r Carrying Out (
e the Presence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               158
```

```
밁
                                                                                           5
                                                                                                                               밁
                                                                                                                                                               á
                                                                                                                                                                                                문
                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-500-811-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 184; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 1078 amino aci
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 43
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-527-7700
TELEPAX: 212-753-6237
TELEX: 236687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM:
                                                                                                                                                                                                                                   465
                                                                                                                                                                                                                                                                     344
                                                                                                                                                                                                                                                                                                                                     319
                                                                                                                                                                                                                                                                                                                                                                     347
                                                                                                                                                                                                                                                                                                                                                                                                                                      302
548
                                                               488
                                                                                              569
                                                                                                                                 440
                                                                                                                                                                                                  383
                                                                                                                                                                                                                                                                                                    407
                                                                                                                                                                                                                                                                                                                                                                                                      260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         102 TATVTTTQASYAAQSAYGTQPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            39 GTSGHP--
                                                                                                                                                                                                                                                                                                                                                                                                      PGLMGARGPPGPAGANGAPGL-RGGAGEPGKNGAKGEPGPRGERGEAGIPGVPGAKGEDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SL-----GYGQSNYSYPQ------VPGSY----PMQPVTAPPSYPPTSYSSTQ 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTYGQPTDVSYTQAQTTATYGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTT
                                                               RGPQGLQGLPGTGGPPGENEKPGEPGPKGEAGAPGAPGGKGDAGAPGERGPPGLAGAPGL
                                                                                                GGMRG-----GRGGLMDR-----
                                                                                                                                                                 GNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP----PGGDRGRGGP
                                                                                                                                                                                                                                                                                                    GKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRG--GLPPREGR 464
                                                                                                                                                                                                                                                                                                                                     KDGSPGDPGANGLPGAAGERGALGS
                                                                                                                                                                                                                                                                                                                                                                     DLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SYGQQSSFRQDHPSSMGVYGQ--ESG--GFSG----PGENRSMSGPDNRG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GFPGMKGHRGFDGRNGEKGETGAPGLKGENGLPGENGAPGPMGPRGAP------
                             RGGRGMDRGGFGGGRRGGPGGPPG----PLMEQMGGRRGGRGGPG-KMDKGE 646
                                                                                                                                 DGAPGKNGERGGPG-GPGPQG-----PPGKNGEYGPQGPPGPTGPGGDKGDTGP
                                                                                                                                                                                                  PGGPGMRGMPGSPGGPGSDGKPGPPGSQGESGRPGPPG---PSGPRGQPGVMGFPGPKGN
                                                                                                                                                                                                                                 GMPPPLRGGPGGPGGPG-----GPMGRMG--GRGGDRGGFPPRGPRGSRG-----NPSGG
                                                                                                                                                                                                                                                                     RGPAGPNGIPGEKGPAGE-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EVGPAGS-----PGSNGAPGQRGEPGPQGHAGAQGPPGPPGINGSPGGKGEMGPAGIPGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PTSYDQSYSQQNTYGQPSSYGQQSSYGQQPSTSYPPQTGSYSQAPSQYSQQSS
RGGAG-PPGPEGGKGAAGPPGPPGAAGTPGLQGMPGERGGLGSPGPKGDKGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----GERGRPGLPGAAGARGNDGARGSDGQPGPPG-PPGTAGFPGSPG----AKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COLLAGEN ALPHA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1078 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10.4%; Score 376.5; DB 3; 25.8%; Pred. No. 8e-18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ----GSPGSPGYQGPPGEP--GQAGPSGPPG---PPGAIG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                  ---RGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ----PSGPA-GKDGESGRPGRPGDRGLP----GPPGIKGPAGIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             34; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21:
                                                                                              -----GGPGGMFRGGRGGDRG-----GF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             235;
                                                                                                                                                                                                                                                                     -RGAPGPAGPRGAAGEPGRDGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels 259;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1078;
                                                                                                                                                                                                                                                                                                                                       ------
598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                599
                                                                                                                                                                  568
                                                                                                                                                                                                                                                                     382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            161
                                                                                                                                   487
                                                                                                                                                                                                  439
                                                                                                                                                                                                                                   512
                                                                                                                                                                                                                                                                                                                                    343
                                                                                                                                                                                                                                                                                                                                                                       406
                                                                                                                                                                                                                                                                                                                                                                                                      318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             34;
```

; Sequence 21, Application US/09570573

RESULT 15 US-09-570-573-21

```
र्
                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                    र्
                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                       δ
                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-570-573-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 10.4%; Score 376.5; DB 3; Length 1078; Best Local Similarity 25.8%; Pred. No. 8e-18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PATENT NO. 6342361
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Bonde, Martin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 184;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEX: 236687

NFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 1078 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo sapiens
IMMEDIATE SOURCE:
CLONE: COLLAGEN ALPHA 1 (III)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: GOGOTIS, Adda C
REGISTRATION NUMBER: 29,714
REFERENCE/DOCKET NUMBER: 4305/08701
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-527-7700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: ISM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: A Method for Assaying Collagen Fragments
TITLE OF INVENTION: in Body Fluids, A Test Kit and Means for Carrying Out the
TITLE OF INVENTION: Method and Use of the Method to Diagnose the Presence of
TITLE OF INVENTION: Disorders Associated with the Metabolism of
NUMBER OF SEQUENCES: 21
CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
BOTATE: New York
STATE: New York
COUNTRY OF NUMBER OF STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPHONE: 214-7-
TELEPHONE: 214-7-
TELEPHONE: 214-7-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/09/570,573 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
ZIP: 10022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION:
    302
                                                                                                                                                                                                                                111
                                          205 EVGPAGS-----PGSNGAPGQRGEPGPQGHAGAQGPPGPPGINGSPGGKGEMGPAGIPGA 259
                                                                                                                                                                                                                                                                                                                                                           102 TATVTTTQASYAAQSAYGTQPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQP 161
                                                                                                                                                                              200 PTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSYPPQTGSYSQAPSQYSQQSS 259
                                                                                                                                                                                                                                                                                                                76 -----GPPGIKGPAGIP 110
                                                                                                                                                                                                                                                                                                                                                                                                                 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                       42 GTYGQPTDVSYTQAQTTATYGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTT 101
                                                                                                                                                                                                                           GFPGMKGHRGFDGRNGEKGETGAPGLKGENGLPGENGAPGPMGPRGAP------ 158
                                                                                       SYGQQSSFRQDHPSSMGVYGQ--ESG--GFSG-----PGENRSMSGPDNRG-----
                                                                                                                                                                                                                                                                                                                                                                                                             ĠTSGHP-----GSPGSPGYQGPPGEP--GQAGPSGPPG---PPGAIG-----
                                                                                                                                  -----GERGRPGLPGAAGARGNDGARGSDGQPGPPG-PPGTAGPPGSPG----AKG 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein
                                                                                                                                                                                                                                                                        GYGQSNYSYPQ-----VPGSY----PMQPVTAPPSYPPTSYSSTQ 199
----RGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDL 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08/187,319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      34; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    235; Indels 259;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                             75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34;
```

뮹	Ş	. 면	Ş	뮍	Ş	문	Ş	당	Ş	뮹	Ş	Db
548	600	488	569	440	513	383	465	344	407	319	347	260
RGGAG-PPGPEGGKGAAGPPGPPGAAGTPGLQGMPGERGGLGSPGPKGDKGE 598	RGGRGMDRGGFGGGRRGGPPGPLMEQMGGRRGGRGGPG-KMDKGE 646	RGPQGLQGLPGTGGPPGENEKPGEPGPKGEAGAPGAPGGKGDAGAPGERGPPGLAGAPGL 547	GGMRGGRGGLMDRGF 599	DGAPGKNGERGGPG-GPGPQGPPGKNGEYGPQGPPGPTGPGGDKGDTGP 487	513 GNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGDRGRGGF 568	PGGPGMRGMPGSPGGPGSDGKPGPPGSQGESGRPGPPGPSGPRGQPGVMGFPGPKGN 439	GMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGG 512	RGPAGPNGIPGEKGPAGE	GKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGR 464	KDGSPGDPGANGLPGAAGERGALGS 343	DLGPPVDPDBDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKET 406	
		7	9	17	œ	ő	Ŋ	2	4	Ü	ğ	œ

Search completed: February 18, 2005, 15:13:48
Job time: 50 secs

This Page Blank (uspto)

```
Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence:
                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
        623
470.5
470.5
423
400.5
400.5
400.5
                                                                                                                                                                                                                                                                                        Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein search, using sw
                                                                                                                                                                                                                                                                                                         Query
                                                                                                                                                                                                                                                                                        Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Published Applications AA:*

1: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*

2: /cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*

3: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*

4: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BLOSUM62
Gapop 10.0 , Gapext 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-791-017A-2
3633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               February 18, 2005, 15:12:20 ; Search time 135 Seconds (without alignments) 1590.149 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1380268 seqs, 327241040 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18:
19:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MASTDYSTYSQAAAQQGYSA......GGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              / Cgnn2_6/ptodata/2/pubpaa/US08_NEW_PUB-Dep:*
/ Cgnn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
/ Cgnn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
/ Cgnn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
/ Cgnn2_6/ptodata/2/pubpaa/US09A_PUBCOMB.pep:*
/ Cgnn2_6/ptodata/2/pubpaa/US09A_PUBCOMB.pep:*
/ Cgnn2_6/ptodata/2/pubpaa/US09A_PUBCOMB.pep:*
/ Cgnn2_6/ptodata/2/pubpaa/US10A_PUBCOMB.pep:*
/ Cgnn2_6/ptodata/2/pubpaa/US10A_PUBCOMB.pep:*
/ Cgnn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                      Length
        114444
4666
6666
6666
6666
6666
                                                                                                                                                                                                                                                                                        멂
          16
10
10
14
14
15
    16 US-10-791-017A-2
15 US-10-094-749-2713
16 US-10-755-889-650
16 US-10-408-765A-116
18 US-09-925-301-1511
19 US-09-925-301-1511
20 US-09-919-039-324
10 US-09-919-039-324
10 US-09-918-715-226
115 US-10-437-963-191926
115 US-10-437-963-191926
116 US-10-173-293-68
117 US-10-177-293-68
118 US-10-257-021-72
                                                                                                                                                                                                                                                                                        ij
Sequence 2, Appli
Sequence 2713, App
Sequence 650, App
Sequence 116, App
Sequence 1511, Ap
Sequence 42397, A
Sequence 191226,
Sequence 69744, App
Sequence 69746,
Sequence 69748, Appl
Sequence 226, Appl
Sequence 33, Appl
Sequence 33, Appl
Sequence 72, Appl
                                                                                                                                                                                                                                                                                    Description
```

45	44	43	42	41	40	39	38	37	36	35	34	ພ	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	
333	333	ω	ω	33.	٠	ω	35.	335.5	37.	4	346	346	4	\mathbf{a}	348	348	348	348	348	348.5	348.5	376.5	384	384	388.5	m	m	m	\sim	400.5	\sim	
•	•	•	•	•	•	•	•	•	•	•	•	9.5	•	•	•	•	•	•	•	•	•	0	10.6	0		0	0		۲	11.0	۲	
1464	1464	1464	854	714	714	1739	1418	1418	1461	1453	1463	1463	1497	578	1496	1496	1496	1496	1496	1449	1449	1078	1466	1466	1466	1466	1466	1466	1466	1466	1466	
14	14	10	17	17	9	10	16	14	16	16	15	15	16	16	16	16	15	14	14	15	15	14	15	15	15	15	15	15	16	16	16	
-10-171-311-3	-10-060-03	-09-918-715-26	-10-488-056-4	1-00	09-861-597-1	-09-795-061-	-10-468-091-	0-058-124-2	-10-468-091-	-10-468-091-2	-10-402-072A-	2-089	-10-468-091-	-10-437-	-10-788-792-	-10-468-091-	-10-236-031B-	-10-301-822-	-10-177	-10-402-072A-	US-10-402-089-8	-10-058	-10-402	US-10-402-089-12	US-10-402-072A-6	-10-402-072A-	-10-402	-10-402-	US-10-734-564-103	-10-358-02	-10-357-851-	
е 36, Арр	e 159	e 261, Ap	47,	e 10,	,	equence 2, Appl	υ •	e 20, App	e 25,	e 26,	e 2,	equence 2, Appl	e 23, App	e 16	e 248,	22	4	35	Sequence 70, Appl	, 80	е 8,	e 21	e 12	e 12	é m	4	ь 6,	4	e 103, Ap	(J)	, Appl	

ALIGNMENTS

```
Sequence 2, Application US/10791017A

; Deblication No. US20040197827A1

; GENERAL INFORMATION:
   APPLICANT: JENAPHARM GmbH & Co. KG
   TITLE OF INVENTION: Methods for Determining Hor
   FILE REFERENCE: Dat 3684/11

; CURRENT APPLICATION NUMBER: US/10/791,017A

; CURRENT FILING DATE: 2004-03-02

; NUMBER OF SEQ ID NOS: 7

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO 2

; LENGTH: 656

; TYPE: PRT

; ORGANISM: Homo sapiens

US-10-791-017A-2
                       S
                                                                 밁
                                                                                                 8
                                                                                                                                             뮍
                                                                                                                                                                             S
                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                             $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 1
US-10-791-017A-2
                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
181 MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSYGQQPPTSY
                                                                                        121 QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP 180
                                                               121
                                                                                                                                                                                                                                                                                                        656;
                                                                                                                                                                    61 YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTTQASYAAQSAYGT 120
                                                                                                                                           61 YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                   1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                         1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT 60
                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                     100.0%; Score 3633; DB 16; 100.0%; Pred. No. 4.7e-209; ative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hormonal Effects of Substances
                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                              Length 656;
                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                        Gaps
                                                               180
                         240
                                                                                                                                             120
                                                                                                                                                                                                                                                                                                        0
```

```
APPLICANT: NAGAHARI, KENJI

APPLICANT: MASUHO, YASUHIKO

TITLE OF INVENTION: NOVEL FULL-LENGTH CDNA

FILE REFERENCE: 084335/0160

CURRENT FILING DATE: 2002-03-12

PRIOR APPLICATION NUMBER: 00/350,435

PRIOR FILING DATE: 2002-01-24

PRIOR PILING DATE: 2002-01-24

PRIOR PILING DATE: 2002-01-24

PRIOR PILING DATE: 2002-01-24

PRIOR PILING DATE: 2001-09-14

NUMBER OF SEQ ID NOS: 3381

SOFTWARE: PATENTIN VET. 2.1

SEQ ID NO 2713

LENGTH: 600

TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                         ; ORGANISM: Homo sapiens
US-10-094-749-2713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: ISOGAI, T.
APPLICANT: SUGIYAMA
APPLICANT: OTSUKI,
Query Match 90.2%;
Best Local Similarity 91.3%;
Matches 599; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2713, Application US/10094749 Publication No. US20030219741A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541 NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481 GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361 SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKFKGDATVSYEDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301 GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181 MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                              OTSUKA, KAORU
NAGAI, KEIICHI
IRIE, RYOTARO
TAMECHIKA, ICHIRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUGIYAMA, TOMOYASU
OTSUKI, TETSUJI
WAKAMATSU, AI
SATO, HIROYUKI
ISHII, SHIZUKO
YAMAMOTO, JUN-ICHI
ISONO, YUUKO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SAIYVQGLNDSVTLDDLADFFKQCGVVKMKRTGQPMIHIYLDKETGKFKGDATVSYEDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR 300
                                                                                                                                                                                                                                                                                                                                                                                        SEKI, NAOHIKO
YOSHIKAWA, TSUTOMU
OTSUKA, MOTOYUKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YURI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAKAO
Score 3277; DB 15;
Pred. No. 7.9e-188;
0; Mismatches 1;
                                    Length
 Indels
                                    600;
 56;
 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
 ۲.
```

```
601
                                                                                       485
                                                                                                                                                                             425
                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                     365
                                                                                                                                                                                                                                                                                                                                                           305
                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              136
                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                         GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCFNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                            PTAKAAVEMFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                  SAIYVQGINDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKFKGDATVSYEDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOPUTAPPSYPPTSYSSTOPTSYDOSSYSOONTYGOPSSYGOOSSYGOOPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTTQASYAAQSAYGT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
GRGMDRGGFGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                         GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY 656
                                                                                                                                      NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                           SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                GRGRGGFDRGGMSRGGRGGGKGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKFGGFMDEGFDLDLGFPVDFDEDSDN 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                             GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                     PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----PTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQGSYGQQSSYGQQPPTSY 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                   304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      244
                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                          544
                                                                                                                                                                               484
                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                     424
                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                             364
                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
```

```
APPLICANT: Bristol-Myers Squibb Company
TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES ASSOCIATED WITH THE NF-kB
TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES ASSOCIATED WITH THE NF-kB
TILE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES ASSOCIATED WITH THE NF-kB
TILE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES ASSOCIATED WITH AND CURRENT PILING DATE: 2004-01-13
PRIOR APPLICATION NUMBER: U.S. 60/440,068
PRIOR APPLICATION NUMBER: U.S. 60/449,757
PRIOR APPLICATION NUMBER: U.S. 60/469,757
PRIOR APPLICATION NUMBER: U.S. 60/469,757
PRIOR PILING DATE: 2003-05-12
NUMBER OF SEQ ID NOS: 823
SOFTWARE: Patentin version 3.2
SEQ ID NO 650
LENGTH: 525
TYPE: PRT
ORGANISM: Homo sapiens
US-10-755-889-650
```

Query Match Best Local Similarity Matches 299; Conserv

35.3%; Score 1281.5; DB 16; Length 525; ilarity 44.8%; Pred. No. 1.1e-68; Conservative 59; Mismatches 155; Indels 155;

29;

RESULT 3 US-10-755-889-650

Sequence 650, Application US/10755889
Publication No. US20040171823A1
GENERAL INFORMATION:

S 밁 á 밁 ঠ 밁 S 밁 Ś 밁 5 밁 ঠ 밁 S 밁 S 문 S 밁

```
Regult
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printer and is derived by analysis of the total score distribution.
                                   484
472.5
376.5
370.5
370.5
368
359
346.5
346.5
346.5
346.5
346.5
346.5
346.5
346.5
346.5
346.5
346.5
                                                                                                                                                                                                                                                                                                                                            Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          seq length: 0 seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein search, using sw
                                                                                                                                                                                                                                                                                                                                         Query
Match
                                                                                                                                                                                                                                                                                                                      100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-791-017A-2
3633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 February 18, 2005, 14:57:35 ; Search time 44 Seconds (without alignments) 1434.504 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                             PIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MASTDYSTYSQAAAQQGYSA......GGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 283416 seqs, 96216763 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GenCore version 5.1.6 Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                         Length DB
                                   CGHU1V
CGHU2V
                                 S23809
S02262
S18251
A40333
B40333
T45467
                                                                                                                                                                                                                 S36174
S33798
CGHU7L
                                                                                                                                                                                                                                                                                                                                                                           SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            283416
RNA-binding pro
RNA-binding pro
RNA-binding pro
fus-like protein
RNA-binding protein
RNA-binding protein
RNA-binding protein
RNA-binding protein
RNA-binding protein
RNA-binding protein
Collagen alpha
                                                                                                                                                                                                                                                                                                                                        Description
```

ALIGNMENTS

	RESULT 1 A49358 RNA-binding protein EWS - human C;Species: Homo sapiens (man) C.Bete: 10.5ep.1090 #semmence revision 10.5ep.1090 #revt change 09.7ul-2004
	Genomics 18, 609-615, 1993 A;Title: Genomic structure of the EWS gene and its relationship to EWSR1, a site of tumor A;Reference number: A49358; MUID:94140360; PMID:8307570 A;Accession: A49358 A;Genomic structure of the EWS gene and its relationship to EWSR1, a site of tumor A;Accession: A49358 A;Benomic structure of tumor and tumor shown A;Molecule type: DNA A;Molecule type: DNA A;Molecule type: DNA
ed,	A;Residues: 1-656 <res> A;Cross-references: UNIPROT:Q01844; EMBL:X72990; NID:g485838; PIDN:CAA51489.1; PID:g8256! R;Delattre, O.; Zucman, J.; Plougastel, B.; Desmaze, C.; Melot, T.; Peter, M.; Kovar, H.,</res>
	A;Title: Gene fusion with an ETS DNA-binding domain caused by chromosome translocation in A;Reference number: S28257; MUID:92396239; PMID:1522903 A;Accession: S28257 A;Molecule type: mRNA
rotei	A; Restauts: 1930 (MBL) A; Cross-references: EMBL:X66899; NID:g547565; PIDN:CAA47350.1; PID:g31280 C.Genetics:
rotei	A;Gene: GDB:EWSR1 A;Cross-references: GDB:135984; OMIM:133450
ein - ding rotei rotei rotei rotei	A;Map position: 22q12.1-22q12.1 A;Introns: 5/1; 17/2; 34/3; 76/1; 138/2; 194/2; 265/1; 325/2; 338/1; 349/1; 388/3; 432/1, A;Introns: 5/1; 17/2; 34/3; 76/1; 138/2; 194/2; 265/1; 325/2; 338/1; 349/1; 388/3; 432/1, A;Note: EWSR1 region is exons 7-10 of this gene, called EWS in reference A49358; this reg C;Superfamily: RNA-binding protein, EWS type; ribonucleoprotein repeat homology C;Keywords: carcinogenesis; nucleus; RNA binding; tandem repeat F;362-437/Domain: ribonucleoprotein repeat homology <rrm></rrm>
a 1(I a 1(I a 1(I prote	Query Match 100.0%; Score 3633; DB 1; Length 656; Best Local Similarity 100.0%; Pred. No. 3.9e-168; Matches 656; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
a 1(t a 2(V a 2(V ype V	Qy 1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT 60
a i(i a i(V icina icina a 2(I	Qy 61 YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT 120
al(X al(X	QY 121 QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP 180
h mol h mol a 3(I	QY 181 MQPYTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQPSTSY 240

```
RNA-binding protein Ews - mouse
C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Species: No.Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: A55726; 845007
R;Plougastel, B.; Mattei, M.G.; Thomas, G.; Delattre, O.
Genomics 23, 278-281, 1994
A;Title: Cloning and chromosome localization of the mouse Ews gene.
A;Reference number: A55726; MUID:95130099; PMID:7829090
A;Accession: A55726; MUID:95130099; PMID:7829090
A;Accession: A55726; MUID:95130099; PMID:7829090
A;Accession: A55726; MUID:95130099; PMID:7829090
A;Cocule type: mRNA
A;Residues: 1-655 <PIO-
A;Cocule type: mRNA

                                                                                                   ş
                                                                                                                                                         밁
                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 643; Conserv
                                                        181
                                                                                                      181
        241
                                                                                                                                                            121
                                                                                                                                                                                         121 QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                   13
                                                                                                                                                                                                                                                                                                                                                                                                 1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                      MOPVTAPPSYPPTSYSSTOPTSYDOSSYSOONTYGOPSSYGOOSSYGOOSSYGOOPPTSY
                                                                                                                                                                                                                                                                                        YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
     PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR 300
                                                                                                                                                            QPAYPTYGQQPTATAPTRPQDGNKPAETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                             YGQTAYATSYGQPPTGYSTPTAPQAYSQPVQGYGTGAYDSTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                   MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NOCKAPKPEGFLPPPPPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NQCKAPKPEGFLPPPFPPPGGDRGRGGDGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SAIYVQGLNDSVTLDDLADFFKQCGVVXMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GRGRGGFDRGGMSRGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 3571.5; DB 1;
Pred. No. 3.6e-165;
8; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                      240
                                                                                                                                                         180
                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
á
                                                   밁
                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
```

```
A;Title: Fusion of Ciper to a novel RNA-binding protein in human myxoid liposarcoma. A;Reference number: S33798; MUID:93288139; PMID:8510758
A;Recession: S33799
A;Molecule type: mRNA
A;Residues: 1-526 <CRO>
A;Cross-references: UNIPROT:P35637; GB:S62140; NID:g386156; PIDN:AAB27102.1; PID:g38
A;Experimental source: liposarcoma
R;Rabbitts, T.H.; Forster, A.; Larson, R.; Nathan, P.
Nature Genet. 4, 175-180, 1993
A;Title: Fusion of the dominant negative transcription regulator CHOP with a novel g
A;Reference number: S36157; MUID:93350637; PMID:7503811
A;References: S36157; MUID:93350637; PMID:7503811
A;Residues: preliminary
A;Molacule type: mRNA
A;Residues: 1-63,'S',66-526 <RAB>
A;Cross-references: EMBL:X71428; NID:g393415; PIDN:CAA50559.1; PID:g4210363
A;Experimental source: liposarcoma
C;Genetics:
A;Genetics:
A;Geneticn:
A;Description: RNA binding; probable plays a role in transcriptional regulation
C;Superfamily: RNA-binding protein, EWS type; ribonucleoprotein repeat homology
C;Keywords: carcinogenesis; nucleus; RNA binding; tandem repeat
F;286-361/Domain: ribonucleoprotein repeat homology <RNM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 3
S33799
RNA-binding protein FUS, nuclear - human
N,Alternate names: RNA-binding protein TLS
C;Species: Homo sapiens (man)
C;Date: 10-Sep_1999 #sequence revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: S33799, S36157
R;Crozat, A; Aman, P.; Mandahl, N.; Ron, D.
Nature 363, 640-644, 1993
Nature 363, 640-644, 1993
                                                     Query Match
Best Local Similarity
Matches 301; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90
MASTDYSTYSQAAAQQGYSAYTAQPTQGYA-QTTQAYGQQSYGTYGQPTDVSYTQAQTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GRGRGGFDRGGMSRGGRGGGRGGLG-AGERGGFNKFGGFMDEGFDLDLGLFIDFDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCFNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQBSGGFSGPGENRSLSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGRGMDRGGFGGGRRGGFGGPPGPLMEQMGGRRGGRGGFGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SAIYVQGLNDNVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGMPPREGRGMPPPLRGGPGGPGGP
                                                     Conservative
                                                                              35.3%;
                                                   59;
                                                   Score 1282; DB 1;
Pred. No. 4.7e-55;
9; Mismatches 153;
                                                                                                   Length 526;
                                                     Indels
                                                     156;
                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            liposarcoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
     59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PID: 9386157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
```

TYGQTAYATSYGQPP-TGYTTPTAPQAYSQPVQGYG-TGAYDTTTATVTTTQASYAAQSA 117

MASNDYT----QQATQSYGAYPTQPGQGYSQQSSQPYGQQSYSGYSQSTD-----TS

Q98ue8 Q69tn3

xenopus tro
oryza sativ
xenopus lae
oryza sativ

drosophila anopheles g homo sapien mus musculu caenorhabdi

xenopus lae brachydanio

homo sapien homo sapien mus musculu

```
Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                February 18, 2005, 14:55:56; Search time 177 Seconds (without alignments) 1897.875 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1612378 seqs, 512079187 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MASTDYSTYSQAAAQQGYSA.....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GenCore version
(c) 1993 - 2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5.1.6
Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . GGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1612378
                                                                                                                                                 Q6dkb4
Q8cfq9
P35637
Q8tbr3
Q13344
                                                                                                                                                                                                                                                                     Q803e3
Q6nwa7
Q9bzd1
Q6j4y8
Q7zxq2
Q28009
P56959
                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9cre5
Q7szr6
Q9bwa2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q6nva3
Q61545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q6nux1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q96mx4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q01844 homo
Q96fe8 homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Description
                                                                                                                                                                                                                      mus musculu
xenopus lae
mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         homo sapien
homo sapien
homo sapien
                                                                              homo sapien
                                                                                                                           homo sapien
                                                                                                                                                                                                                                                                                              вод
                                                                                                                                                                                                                                                                                                                    gallus gall
xenopus lae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bru
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BTIE
                                                                                                                                                                       homo sapien
                                                                                                                                                                                                                                                                                                                                                                                         brachydanio
brachydanio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 brachydanio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             xenopus tro
brachydanio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mus
                                     homo sapien
xenopus tro
                                                                                                                                                                                                                                                                                                                                                                     homo
                                                                                                                                                                                                                                                                                                                                                                                                                                        homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            xenopus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      musculu
unsculu
                                                                                                                                                                                                                                                                                              taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          musculu
                                                                                                                                                                                                                                                                                                                                                                   gapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ٠,٠
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 1
EWS_HUMAN
            RP SEQUENCE FROM N.A.

RP SEQUENCE FROM N.A.

REDIINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RX MEDLINE=2388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RX MISSINE-22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RX MISSINE-22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RX MISSINE-22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RX MISSINE-22388257; PubMed=12.0.

RX MISSINE-22388257; PubMed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q01844; Q92635;
01-JUN-1994 (Rel. 29, Created)
01-JUN-1994 (Rel. 29, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
RNA-binding protein EWS (EWS oncogene) (Ewing region 1 protein)
Name=EWSR1; Synonyms=EWS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=94140360; PubMed=8307570; Plougastel B., Zucman J., Peter M., Thomas G., Delattre O.; Plougastel E., Excending the EWS gene and its relationship to EWSR1, "Genomic structure of the EWS gene and its relationship to EWSR1, site of tumor-associated chromosome translocation."; Genomics 18:609-615(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-Fetal brain;
MEDLINE=92396239; PubMed=1522903; DOI=10.1038/359162a0;
Delattre O., Zucman J., Plougastel B., Desmaze C., Melot T., Peter M.,
Kovar H., Joubert I., de Jong P., Rouleau G., Aurias A., Thomas G.;
"Gene fusion with an ETS DNA-binding domain caused by chromosome
translocation in human tumours.";
Nature 359:162-165(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (MAY-1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Zucman-Rossi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EWS HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            884.5
782
717.6
69.5
625.5
621.5
583.5
452.5
420.5
400.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24.3
21.5
21.5
119.7
117.0
117.1
112.5
111.6
111.6
111.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            475
410
399
442
189
280
280
2448
3944
1163
1163
1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ូ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q6613
Q7ZUB3
CAZ DROME
Q7PŪK2
Q7PŪK2
Q7PŪK2
Q71E78
Q91VQ2
Q18265
Q6DDA7
Q6DDA7
Q6DDA7
Q6DDA7
Q6BUE8
Q6VS82
Q8VS82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sarcoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               breakpoint
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q66j39
Q7zue3
Q7zue3
Q27294
Q7puk2
Q71e78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P02461
Q8bqu4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q6ys82
Q8n6u4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q91vq2
Q18265
```

Regult No.

Score

Match 9

멺

EWS

EWS MOUSE Q9DZPO Q96MN4 Q6P3NO

Q6NVA3 Q96MX4

ø

Q7ZXQ2 FUS_BOVIN FUS_MOUSE

FUS HUMAN QBTER3 Q13344 QBBQ46 RB56 HUMAN Q95KGB Q86X94 Q66XD1

HUMAN

3618.5 362.5 3571.5 3547.5 2586.5 1885.5 1885.5 11874 11753

 $\begin{array}{c} 6655\\$

Q803E3 Q6NWA7 Q9BZD1

Q6NUX1 Q9CRS5 Q7SZR6 Q9BWA2

Minimum Maximum

88

geq Pea

length:

Total number

of hits

eatisfying 2000000000

Scoring table: Sequence: Perfect Title:

BLOSUM62

Gapop 10.0 ,

Gapext

score:

US-10-791-017A-2 3633

protein 95:

ŧ

protein search,

neing

8€

model

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*

```
Li K.K.C., Lee K.A.W.;
"Transcriptional activation by the Ewing's sarcoma be cis-repressed by the EWS RNA-binding domain.";
J. Biol. Chem. 275:23053-23058 (2000).
-!- FUNCTION: Might normally function as a repressor-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=98325009; PubMed=9660765; DOI=10.1074/jbc.273.29.18086; Zhang D., Paley A.J., Childs G.; "The transcriptional repressor ZPM1 interacts with and modulate ability of EWS to activate transcription."; J. Biol. Chem. 273:18086-18091(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ALTERNATIVE STEEDAND, MEDILINE 94366763, PubMede18084618, Ohno T., Ouchida M., Lee L., Gatalica Z., Rao V.N., Reddy B.S.P.; "The EWS gene, involved in Ewing family of tumors, malignant melanoma of anfi narts and desmoplastic small round cell tumors, codes for an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Belyanskaya L.L., Gehrig P.M., Gehring H.;
"Exposure on cell surface and extensive arginine methylation of Ewing sarcoma (EWS) protein.";
J. Biol. Chem. 276:18681-18687(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PHOSPHORYLATION SITE SER-266, AND PARTIAL SEQUENCE.

MEDLINE=98001723; PubMed=9341188; DOI=10.1074/jbc.272.43.27369;

Deloulme J.C., Prichard L., Delattre O., Storm D.R.;

"The prooncoprotein EWS binds calmodulin and is phosphorylated!

protein kinase C through an IQ domain.";

J. Biol. Chem. 272:27369-27377(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=95352541; PubMed=7542907;
Bhagirath T., Abe S., Nojima T., Yoshida M.C.;
"Molecular analysis of a t(11;22) translocation
Ewing's sarcoma.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of soft parts and desmoplastic small round cell tumo.
RNA binding protein with novel regulatory domains.";
Oncogene 9:3087-3097(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 128-158; 233-247; 268-324; 334-364; 393-439; 447-518
551-641, METHYLATION OF ARGININES, AND MASS SPECTROMETRY.
MEDLINE=21276345; PubMed=11278906; DOI=10.1074/jbc.M011446200;
Belyanskaya L.L., Gehrig P.M., Gehring H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Identification of new members
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genomics 38:247-254 (1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=20390060; PubMed=10767297; DOI=10.1074/jbc.M002961200;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHARACTERIZATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALTERNATIVE SPLICING,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 241-268 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=97131501; PubMed=8975699; DOI=10.1006/geno.1996.0625;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 1-345 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INTERACTION WITH SF1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'Generation
                                                                                                                                                                                                                                                                        fusion protein target genes. SUBUNIT: Binds POLR2C, SF1,
                                                                                                                                                                                                                                                                                                           fusion pa
                                                                                                                                                                                                                                                                                                                              FUNCTION: Might normally function as a repressor. EWS-fusion-
proteins (EFPS) may play a role in the tumorigenic process. They
may disturb gene expression by mimicking, or interfering with the
normal function of CTD-POLII within the transcription initiation
complex. They may also contribute to an aberrant activation of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mouse cDNA sequences.";
                                                                                                                                               ALTERNATIVE
                                                                                                                                                                                                               SUBCELLULAR LOCATION: Nuclear,
                            Name=EWS-B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chromosomes Cancer 13:126-132(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    chromosome region.
                                                            IBOId=Q01844-1;
IsoId=Q01844-2; Sequence=VSP_005793;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and initial analysis
                                                                                                                                                  from cytoplasm
E PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AND
                                                         Sequence=Displayed;
                                                                                                                     splicing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Jones S.J.M., Marra M.A.; nalysis of more than 15,000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RNA-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Thomas
                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of the Gas2 and Ras families in
                                                                                                                                                                                                                                                                           calmodulin and RNA.
                                                                                                                     Named
                                                                                                                                                                                                           cytoplasmic
                                                                                                                     isoforms=2;
                                                                                                                                                                                  PTK2B/FAK2 activation
                                                                                                                                                                                                               and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  junction in
                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (EWS)
                                                                                                                                                                                                                                                                           Interacts with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         modulates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       oncogene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a case
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ဇ္ဗ
```

```
which EMSR1 is fused to a variety of cellular transcription
factors. EFPS are very potent transcriptional activators dependent
on the EAD and a C-terminal DNA-binding domain contributed by the
fusion partner. The spectrum of malignancies associated with EFPS
are thought to arise via EFP-induced transcriptional deregulation,
with the tumor phenotype specified by the EMSR1 fusion partner and
cell type. Transcriptional repression of the transforming growth
factor beta type II receptor (TGF beta RII) is an important target
of the EMS-FLII, EMS-ERG, or EMS-ETVI oncogene.

--- MISCELLANEOUS: Binds calmodulin in the presence, but not in the
absence, of calcium ion.
--- SIMIIARITY: Contains 1 IQ domain.
--- SIMIIARITY: Contains 1 RNA recognition motif (RRM) domain.
--- SIMIIARITY: Contains 1 RNA recognition motif (RRM) domain.
--- BATABASE: NAMES-Atlas Genet. Cytogenet: Oncol. Haematol.;
WMW="http://www.infobiogen.fr/services/chromcancer/Genes/EMSRIID85.html".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   involves EMSR1 and WT1.

DISRASE: Malignant melanoma of soft parts (MMSP), also know soft tissue clear cell sarcoma, is a rare tumor developing tendons and aponeuroses. It is associated with chromosomal translocation t(12;22)(q13;q12) involving EMSR1 and ATF-1.

DISRASE: Involved in small round cell sarcoma through a commal translocation t(1;22)(p36.1;q12) that involves
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISEASE: Ewing's sarcoma is characterized by chromosomal translocations t(1;22)(q24,q12) which involves EWSR1 and FLI1, t(7;22)(q22,q12) which involves EWSR1 and ETV1, t(1;22)(q21) which involves EWSR1 and ERG and t(9;22)(q22-31;q11-12) which involves EWSR1 and ERG and t(9;22)(q22-31;q11-12) which involves EWSR1 and NR4A3.

DISEASE: Involved in desmoplastic small round cell tumor (DSRCT) through a chromosomal translocation t(11;22)(p13;q12) that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE SPECIFICITY: Ubiquitous.

DOMAIN: EWS activation domain (EAD) functions as a potent DOMAIN: EWS activation domain (EAD) functions as a potent activation domain in EFPS. EWSRI binds POIR2C but not POIR2G POIR2G, whereas the isolated EAD binds POIR2E and POIR2G POIR2C. Cis-linked RNA-binding domain (RBD) can strongly specifically repress trains-activation by the EAD.

PTM: Phosphorylated; calmodulin-binding inhibits phosphor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MISCELLANEOUS: EFPS arise due to chromosomal translocations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Phosphorylated; calmodulin-binding inhibits phosphorylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           There are no restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Usage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a potent
t not POLR2E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        also known
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EWSR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ដ
```

EMBL; A49358; A49358. ; O95218; INOZ. X66899; X72990; AB016435; BAA31990.: Y07848; CAA69177.1; CAA47350.1; CAA51489.1; CAA51489.1; CAA51489.1; CAA51489.1; BAA31990.1; ALT_INIT

·Ź

· · · > #

ij

```
유 &
                                                                                                                                                                                                                                                                                                                                                 ት የ
                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                 र्
                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          另
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 656;
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
TISSUE=Lymph, and Skin;
TISSUE=Lymph, and Skin;
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
Strausberg R.D., Feingold E.A., Grouse L.H., Derge J.G.,
Strausberg R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
Klausmer R.D., Collins F.S., Wagner L., Schaefer C.F., Bhat N.K.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Naltschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
                                                                                                                                                                     Q96FE8;
Q96FE8;
01-DEC-2001
01-DEC-2001
25-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         H-InvDB; HIX0016349;
MIM; 133450; -.
                                                                                                                  Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                   Ewing sarcoma
Name=EWSR1;
                                                                                                                                                                                                                                     N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            μ
                                                                                                                                                                                                                                                                                                                            NQCKAPKPEGFLPPPFFPPGGDRGRGGPGGPGGRGGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GRGRGGFDRGGMSRGGRGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAYTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                      GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                    GGRGMDRGGFGGGRRGGDPGDPMEQMGGRRGGRGGDGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                        GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                       GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                   PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                               PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                             SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                        SAIYVQGLNDSVTLDDLADFFKQCGVVKMKRTGQFMIHIYLDKETGKFKGDATVSYEDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                      (TremBLrel. 19, Createa)
(TremBLrel. 19, Last sequence update)
(TremBLrel. 28, Last annotation update)
(TremBLrel. 28, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 3633; DB 1; 100.0%; Pred. No. 2.7e-148; tive 0; Mismatches 0;
                                                                                                                  Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                  655
                                                                                                                                                                                                                 ₿
                                                                                                                                                              (EWSR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                             protein)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      656;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                      656
                                                                                                                                                                                                                                                                                           656
                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                    δ
                                                                                                                                                                                                                                                            S
                                           맑
                                                             S
                                                                                    밁
                                                                                                                              밁
                                                                                                                                                 á
                                                                                                                                                                       밁
                                                                                                                                                                                          Ś
```

```
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Whiting M., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Jones S.J., Marra M.A.;
RGeneration and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences ";
                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HSSP; O95218; INOZ.

GO; GO:0005634; C:nucleus; IEA.

GO; GO:0005636; F:nucleic acid binding; IEA.

GO; GO:0008270; F:zinc ion binding; IEA.

InterPro; IPR001368; RNA-binding_EWS.

InterPro; IPR001504; RNA_rec_mot.

InterPro; IPR001876; Znf RandDP.

Pfam; PF00676; RRM_1; 1.

Pfam; PF00641; zf-RanBP; 1.

PIRSF; PIRSF002101; RNA-binding_EWS; 1.

SMART; SM00360; RRM; 1.

PROSITE; PS50136; ZF_RANBP2_1; 1.

PROSITE; PS01358; ZF_RANBP2_1; 1.

PROSITE; PS01358; ZF_RANBP2_1; 1.

PROSITE; PS01358; ZF_RANBP2_1; 1.

PROSITE; PS01358; ZF_RANBP2_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Beare D.M., Dunham I.;
Submitted (MAY-2004) to the EMBL/GenBank/DDBJ databases
EMBL; BC011048; AAH11048.1; -.
EMBL; BC072442; AAH72442.1; -.
EMBL; CR456490; CAG30376.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Collins J.E., wright
Cole C.G., Goward M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Strausberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Skin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Strausberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. TISSUE=Lymph;
                                               181
                                                                                          181
                                                                                                                                       121
                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                   655;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Natl. Acad. Sci. U.S.A.
                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                     μ
                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    J.E., Wright
                                                                                                                                                                         QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                        YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                  MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                            MQPVTAPBSYPTSYSSTQPYSYDQSSYSQQNTYQQPSSYGQQSSYGQQSSYGQQPTSY
                                                                                                                                     QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                        MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                               MOPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (JUN-2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (JUL-2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             655 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           68391 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                      99.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ៥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Aguado
                                                                                                                                                                                                                                  /TTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Edwards
Juado B.,
                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                Score 3618.5; DB 2
Pred. No. 1.1e-147;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99:16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.
B539ED1E98C601ED CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C.A., Davis
Mallya M., N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g M.P.,
Mokrab
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Grinham
Y., Huck
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Huckle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          л J.A,
19 Е.7
                                                                                                                                                                                                                                                                                                                                                                                                                   1;
                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
.
                                               240
                                                                                          240
                                                                                                                                       180
                                                                                                                                                                                       180
                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                                                                                                     60
```

```
RESULT

OPENIT

OPENIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
               RA Ota T., Suzuki Y., Nishikawa T., Otsuki T., Sugiyama T., Irie R.,
RA Wakamatsu A., Haysehi M., Nishi T., Shibahara T., Tanaka T., Ishi S.,
RA Sekine M., Obayashi M., Nishi T., Shibahara T., Tanaka T., Ishi S.,
RA Sekine M., Obayashi M., Nishi T., Shibahara T., Tanaka T., Ishi S.,
RA Yamamoto J., Saito K., Kawai Y., Isono Y., Nakamura Y., Nagahari K.,
RA Yamamoto J., Saito K., Kawai Y., Isono Y., Nakamura Y., Nagahari K.,
RA Murakami K., Yasuda T., Iwayanagi T., Wagatsuma M., Shiratori A.,
RA Sudo H., Hosoiri T., Kaku Y., Kodaira H., Kondo H., Sugawara M.,
RA Abe K., Kamihara K., Katsuta N., Sato K., Tanikawa M., Yamazaki M.,
RA Ninomiya K., Ishibashi T., Yamashita H., Murakawa K., Fujimori K.,
RA Ninomiya K., Ishibashi T., Yamashita H., Murakawa K., Fujimori K.,
RA Ninomiya K., Takahashi-Fujii A., Hara H., Tanase T., Nomura Y.,
RA Kanehori K., Takahashi-Fujii A., Hara H., Tanase T., Nomura Y.,
RA Musashino K., Yuuki H., Oshima A., Sasaki N., Acteuka S.,
RA Togiya S., Komai F., Hara R., Takeuchi K., Arita M., Imose N.,
RA Moriya S., Momiyama H., Satoh N., Takami S., Terashima Y., Suzuki O.,
RA Makagawa S., Senoh A., Mizoguchi H., Goto Y., Shimizu F., Wakebe H.,
RA Yumazaki M., Watanabe T., Sugiyama A., Takemoto M., Kawakami B.,
RA Pujimori Y., Komiyama M., Tashiro H., Tanigami A., Fujiwara T.,
RA Pujimori Y., Komiyama M., Tashiro H., Tanigami A., Fujiwara T.,
RA RA Kawabata A., Hikiji T., Nobateke N., Inagaki H., Ikema Y., Okamoto S.,
RA Mizushima-Sugano J., Satoh T., Shirai Y., Takahashi Y., Nakagawa K.,
RA Mizushima-Sugano J., Satoh T., Shirai Y., Takahashi Y., Nakagawa K.,
RA Nakai K., Yada T., Nakamura Y., Ohara O., Isogai T., Sugano S.,
"Complete sequencing and characterization of 21,243 full-length human
"Complete sequencing and characterization of 21,243 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q96MX4
Q96MX4;
Q1-DEC-2001
Q1-DEC-2001
Q1-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Hypothetical protein FLJ31747.
Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. PubMed=14702039; DC Ota T., Suzuki Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGRGMDRGGFGGGRRGGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NQCKAPKPEGFLPPPPPPGGDRGRGGFGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NOCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKFKGDATVSYEDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GRGRGGFDRGGMSRGGRGGGRGGMG-AGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQFMIHIYLDKETGKFKGDATVSYEDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOI=10.1038/ng1285;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          656
                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                      δ
                                                                                                                                                                                                           맑
                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 655; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GO; GO:0005634; C:nucleus; IBA.
GO; GO:0003676; F:nucleic acid binding; IBA.
GO; GO:0008270; F:zinc ion binding; IEA.
InterPro; IPR011368; RNA-binding EWS.
InterPro; IPR001368; RNA rec mct.
InterPro; IPR001876; Znf_RanGDP.
IPfam; PF00076; RRM 1; 1.
IPfam; PF00076; RRM 1; 1.
IPfam; PF000761; zf-RanBP; 1.
IPfam; PF000761; zf-RanBP; 1.
IPFAM; PF0007641; zf-RanBP; 1.
IPRSF; PIRSF002101; RNA-binding EWS; 1.
INART; SM00360; RRM; 1.
IPROSITE; PS001368; ZFRANBPZ; 1.
IPROSITE; PS001368; ZFRANBPZ-1; 1.
IPROSITE; PS01199; ZF-RANBPZ-1; 1.
                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                       660
                                                                                                                                                655
                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                       595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genet. 36:40-45(2004).
AK056309; BAB71145.1;
O95218; 1NOZ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QPPTSYPPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSM
                                                                                                                                                   λď
                                                                                           P.
                                                                                                                                                                                                                                              DRGGFRGGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDR
                                                                                                                                                                                                                                                                                                                                                                     AWRTECNQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGIMDRGGPGGMFRGGRGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                       -GGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SGPDNRGRGGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VPGSYPMQPVTAPPSYSPPTSYSSTQPTSYDQSSYBQQSSYGQQSSYGQQSSYGQQSSYGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QSAYGTQPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q$AYGTQPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YGQTAYATSYGQPPTVEGTSTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YGQTAYATSYGQPP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MASTDYSTYSQAAAQQGYSAYAGATQAYQQTQAYGQQSYGTYGQGTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                   AWRTECNQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEDSDNSATYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMTHTYLDKETGKPKGDAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SGPDNRGRGGGFDRGGMSRGGRGGGRGGMG-AGERGGFNKPGGPMDEGPDLDLGPPVDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QPPTSYPPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VPGSYPMQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQ
                                                                                                                                                                                                               DRGGFRGGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDR
                                                                                                                                                   656
                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -TGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 3605.5; DB 2
Pred. No. 4.2e-147;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5F84F52FDCD51269 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     o
,,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
```

659 654 599 594 539 479 474 419 414 359 354 300 294 240 234 180 ð

유 &

S 밁 S 밁 δ 닭 δ

```
8 8
                                                                                                                                                        ક
                                                                                                                                                                                                         밁
                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C STRAIN-C57BL/6; TISSUE-Brain;

K MEDLINE-C27388257; PubMede12477932; DOI=10.1073/pnas.242603899;

K Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

A Alteschul S.F., Zeebberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

A Brownstein M.J., Usdin T.B., Bonaldo M.F., Cassvant T.L., Scheetz T.E.,

A Stapleton M., Soares M.B., Bonaldo M.F., Casvant T.L., Scheetz T.E.,

A Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

A Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

A Brownstein M.J., Wadin T.B., Toshiyuki S., Carninci P., Prange C.,

A Brownstein M.J., Wadin T.B., Soarcia A.M., Gay I.J., Hulyk S.J.,

A Brownstein M.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

A Bosak S.A., McEwan P.J., McKernan K.J., Lu X., Gilbs R.A.,

A Willalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gilbs R.A.,

A Willalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gilbs R.A.,

A Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

A Hakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

A Krzywinski M.I., Skalska U., Smailus D.B., Schnerch A., Schein J.B.,

Nanarra M.A.,

Nanara M.A.,
                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=C57BL/6; TISSUE-Brain;
Director MGC Project;
Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databases.
EMBL; BC068226; AAH68226.1; -.
GO; GO:0005634; C:nucleus; IDA.
InterPro; IPR011368; RNA-binding_EWS.
InterPro; IPR001504; RNA_rec_mot.
InterPro; IPR001876; Znf_RanGDP.
                                                                                                                                                                                                                                                                                                                                                                      SMART; SM00360; RRM; 1.

SMART; SM00547; ZnP RBZ; 1.

PROSITE; PS50102; RRM, NBP2

PROSITE; PS501358; ZP RANBP2 1; 1.

PROSITE; PS50199; ZP RANBP2 2; 1.

SEQUENCE 656 AA; 68549 MW; 5D!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OGNVA3, PRELIMINARY; PRT; 656 AA.

QGNVA3, QGNVA3, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; PF00076; RRM 1; 1.
Pfam; PF00641; zf-RanBP; 1.
PIRSF; PIRSF002101; RVA-binding_EWS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Jones S.J., Marra M.A.; "Generation and initial analysis of more than 15,000 and mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Name=Ewerl;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ewing sarcoma breakpoint
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.
      181
                                                                                     121
                                                                                                                                                                                                                                                                                           642;
                                                                                                                                                                 19
                                                                                                                                                                                                              _
                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                               MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                      YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY, 240
                                          QPAYPTYGQQPTATAPTRPQDGNKPAETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                    QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                          YGQTAYATSYGQPPTGYSTPTAPQAYSQPVQGYGTGTYDSTTATVTTTQASYAAQTAYGT
                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                                                                                                                                                              98.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             region 1.
                                                                                                                                                                                                                                                                                       Score 3579; DB 2;
Pred. No. 5.6e-146;
9; Mismatches 5;
                                                                                                                                                                                                                                                                                                                                                                             SDF018A22C8C1D0B CRC64;
                                                                                                                                                                                                                                                                                                                                Length 656;
                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              full-length human
                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                       Gaps
                                                                                 180
                                          180
                                                                                                                          120
                                                                                                                                                                 120
                                                                                                                                                                                                            60
```

```
EWS_MOUSE
ID EWS MOUSE
ID EWS MOUSE
AC Q61545;
DT 01-NOV-199;
DT 01-NOV-199;
DT 02-OCT-2004
DE RAN-binding
GN Name=Ewsril-
OS Mus muscull
OS Mus muscull
OS MAMMALINE-95;
RN [1]
OX NCBI_TaxID-
RN SEQUENCE FR
RC TISSUE-Test
RC I-I-SUBCELL
CC -I-SUBCELL
CC -I-SUBC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Plougastel B., Mattei M.-G., Thomas G., Delattre O., "Cloning and chromosome localization of the mouse Ews gene." Genomics 23:278-281(1994).

-I- FUNCTION: Might function as a repressor (By similarity).

-I- SUBUNIT: Binds RNA, POLR2C, SF1 and calmodulin. Interact
                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q61545;
Q61-NOV-1997 (Rel. 35, Created)
Q1-NOV-1997 (Rel. 35, Last sequence update)
Q5-OCT-2004 (Rel. 45, Last annotation update)
RNA-binding protein EWS.
Name=Ewsr1; Synonyms=Ews, Ewsh;
Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=95130099; PubMed=7829090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mammalia; Eutheria;
                                                                                                                                                                                                                                                                        PTW: Phosphorylated; calmodulin-binding inhibits phosphorylation of Ser-266 (By similarity):
MISCRILANEOUS: Binds calmodulin in the presence, but not in the absence, of calcium ion (By similarity).
SIMILARITY: Belongs to the RNP TET family.
SIMILARITY: Contains 1 IQ domain.
SIMILARITY: Contains 1 RNA recognition motif (RRM) domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PTK2B (By similarity).
SUBCELLULAR LOCATION: Nuclear,
SUBCELLULAR LOCATION: Nuclear,
Subcellular to river to the subcellular to river to ri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGMPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SAIYVQGLNDNVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GRGRGGFDRGGMSRGGRGGGRGGLGSAGERGGFNKPGGPMDEGPDLDLGLPIDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSLSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Thomas G., Deruc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ar, cytoplasmic ribosomes upon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       calmodulin. Interacts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and on cell surface PTK2B/FAK2 activation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               activation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
```

```
HSSF; USDALO, TOMORIS PROBLEM FOR TOWN OF THE PROBLEM FOR PROSITE; PSS0102; RRM, 1.

DR PROSITE; PSS019; ZF RANBP2 1; 1.

DR PROSITE; PSS019; ZF RANBP2 1; 1.

DR PROSITE; PSS019; ZF RANBP2 1; 1.

PROSITE; PSS01
                                                                                                                                      DOMAIN
DOMAIN
DOMAIN
DOMAIN
DOMAIN
REPEAT
                                                                                                       MOD_RES
            MOD_RES
                             MOD_RES
                                                                   MOD_RES
                                                                                     MOD_RES
                                                                                                                          MOD_RES
                                                 MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; X79233;
PIR; A55726;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   send
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A55726; A55726.

095218; 1NOZ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                     317
                                                 314
                                                                     309
                                                                                        304
              321
              321
                               317
                                                                     309
                                                                                       304
                                                                                                           302
                                                                                                                             Asymmetric dimethylarginine (similarity).
Asymmetric dimethylarginine (similarity).
Asymmetric dimethylarginine (similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RNA-binding
RanBP2-type.
31 X approxi
                                                                                                 Asymmetric dimethylarginine
                                                                                                                          Arg/Gly/Pro-rich.
Arg/Gly/Pro-rich.
Arg/Gly/Pro-rich.
Arg/Gly/Pro-rich.
Asymmetric dimethylarginine
                                                                                                                                                                   31
31
31
31
31
31
                                                           Asymmetric similarity)
                                                                               similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    approximate tandem repeats.
                                                                  dimethylarginine
                                                                                     dimethylarginine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (RRM)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein;
            (By
                                                                 Œγ
                              (By
                                                (By
                                                                                      (By
                                                                                                       (B
                                                                                                                            (By
           á
                              몽
                                             Ô
                                                                   밁
                                                                                   S
                                                                                                       밁
                                                                                                                          5
                                                                                                                                               밁
                                                                                                                                                               8
                                                                                                                                                                                   밁
                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 643
                                                                                                                                                                                                                                                               MOD_RES
SEQUENCE
                                                                                                                                                                                                                                                                                                                              MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOD_RES
                                                                                                                                                                                                                                                                                         MOD_RES
                                                                                                                                                                                                                                                                                                           MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                      MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                         MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                           MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                              MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOD_RES
                                                                                                                                                                                                                                                                                                                                                  MOD_RES
                                                                                                                                                                                                                                                                                                                                                                     MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOD_RES
            301
                               241
                                                241
                                                                    181
                                                                                       181
                                                                                                         121
                                                                                                                            121
                                                                                                                                               61
                                                                                                                                                                 13
                                                                                                                                                                                                                           643; Conservative
                                                                                                                                                                                                       μ
                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                  MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
GRGRGGFDRGGMSRGGRGGGRGGGMGSAGERGGFNKPGGFMDEGPDLDLGPPVDPDEDSDN
                            QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                         YGQTAYATSYGQPPTGYTTTATQAQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                               MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                         QPAYPTYGQQPTATAPTRPQDGNKPAETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                YGQTAYATSYGQPPTGYSTPTAPQAYSQPVQGYGTGAYDSTTATVTTTQASYAAQSAYGT
                                                                     MOPVTAPPS
                                                                                                                                                                                                                                                               266
655 J
                                                                                                                                                                                                                                                                                            635
                                                                                                                                                                                                                                                                                                              632
                                                                                                                                                                                                                                                                                                                                 614
                                                                                                                                                                                                                                                                                                                                                    909
                                                                                                                                                                                                                                                                                                                                                                       602
                                                                                                                                                                                                                                                                                                                                                                                        599
                                                                                                                                                                                                                                                                                                                                                                                                           595
                                                                                                                                                                                                                                                                                                                                                                                                                               591
                                                                                                                                                                                                                                                                                                                                                                                                                                                 588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    454
                                                                                                                                                                                                                                                               AA,
                                                                                                                                                                                                                                                               266
68418
                                                                                                                                                                                                                                                                                           635
                                                                                                                                                                                                                                                                                                             632
                                                                                                                                                                                                                                                                                                                                614
                                                                                                                                                                                                                                                                                                                                                    909
                                                                                                                                                                                                                                                                                                                                                                       602
                                                                                                                                                                                                                                                                                                                                                                                        599
                                                                                                                                                                                                                                                                                                                                                                                                           595
                                                                                                                                                                                                                                                                                                                                                                                                                               591
                                                                                                                                                                                                                                                                                                                                                                                                                                                 588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    454
                                                                                                                                                                                                                                   98.3%;
98.0%;
                                                                   XSSQPTSYDQSSYSQQTYGQPSSYGQQSSYGQQSYGQQPTSY
                                                                                                                                                                                                                                                                MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 similarity).

Asymmetric dimethylarginine similarity).

Phosphoserine (by PKC) (By PKC) (By 50735EDB54247D69 CRC64;
                                                                                                                                                                                                                        Score 3571.5; DB 1
Pred. No. 1.2e-145;
8; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Asymmetric (
similarity)
Asymmetric (
                                                                                                                                                                                                                                                                                                                       Asymmetric similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABymmetrity).
...mmetric dimethylarginine
                                                                                                                                                                                                                                                                                                            Asymmetric
                                                                                                                                                                                                                                                                                                                                          similarity)
                                                                                                                                                                                                                                                                                                                                                            Asymmetric
similarity)
                                                                                                                                                                                                                                                                                                                                                                                Asymmetric
similarity)
                                                                                                                                                                                                                                                                                                                                                                                                  Asymmetric
similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                     Asymmetric
similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Asymmetric
similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Asymmetric
similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Asymmetric
similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Asymmetric
similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Asymmetric
similarity)
                                                                                                                                                                                                                                                                                                                                                    Asymmetric
                                                                                                                                                                                                                                                                                                                                                                                                                                        similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            similarity)
                                                                                                                                                                                                                                                                                        dimethylarginine
                                                                                                                                                                                                                                                                                                            dimethylarginine
                                                                                                                                                                                                                                                                                                                              dimethylarginine
                                                                                                                                                                                                                                                                                                                                                 dimethylarginine
                                                                                                                                                                                                                                                                                                                                                                   dimethylarginine
                                                                                                                                                                                                                                                                                                                                                                                      dimethylarginine
                                                                                                                                                                                                                                                                                                                                                                                                         dimethylarginine
                                                                                                                                                                                                                                                                                                                                                                                                                           dimethylarginine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      dimethylarginine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          dimethylarginine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              dimethylarginine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              dimethylarginine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  dimethylarginine
                                                                                                                                                                                                                                                                                                                                                                                                                                                dimethylarginine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           dimethylarginine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  dimethylarginine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         dimethylarginine
                                                                                                                                                                                                                                            DB 1;
                                                                                                                                                                                                                           4
                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                           Length 655;
                                                                                                                                                                                                                                                                        (By similarity).
                                                                                                                                                                                                                                                                                                                                                  (Ву
                                                                                                                                                                                                                                                                                            æ
                                                                                                                                                                                                                                                                                                                                                                                                                                              æ
                                                                                                                                                                                                                                                                                                            (Ву
                                                                                                                                                                                                                                                                                                                                                                                                                             (B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     γa)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (Ву
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (By
                                                                                                                                                                                                                                                                                                                                (By
                                                                                                                                                                                                                                                                                                                                                                     (B)
                                                                                                                                                                                                                                                                                                                                                                                        (By
                                                                                                                                                                                                                                                                                                                                                                                                          æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ξBγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             æ
                                                                                                                                                                                                                          1;
                                                                                                                                                                                                                          Gaps
```

```
RESULT OF THE REAL PROPERTY OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         음 중
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                         SEQUENCE FROM N.A.

STRAIN-C57BL/6J; TISSUE-Placenta and extra embryonic tissue;

MEDLINE-20499374, PubMed-11042159; DOI-10.1101/gr.145100;

Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., It

Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;

"Normalization and subtraction of cap-trapper-selected cDNAs to

prepare full-length cDNA libraries for rapid discovery of new ge

Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9D2P0 PRELIMINARY; PRT; 655 AA.
Q9D2P0;
01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Mus musculus 18 days pregnant adult female placenta and extra
embryonic tissue cDNA, RIKEN full-length enriched library,
clone:3830417B11 product:Ewing sarcoma homolog, full insert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
STRAIN-C57BL/6J; TISSUE-Placenta and extra embryonic tissue;
MEDLINE-21085660; PubMed-11217851; DOI-10.1038/35055500;
                                                                                                                                                                                                                                                                                                                        the RIKEN Genome Exploration Research Group Phase I & II Team; "Analysis of the mouse transcriptome based on functional annot 60,770 full-length cDNAs.";
Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Placenta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Placenta and extra embryonic tissue;
MEDLINE=99279253; PubMed=10349636; DCI=10.1016/S0076-6879(99)03004-9;
          SEQUENCE FROM N.A.
STRAIN=CS7BL/6J; T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Carninci P., Hayashizaki Y.;
"High-efficiency full-length cDNA cloning.";
Meth. Enzymol. 303:19-44(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nature 409:685-690(2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Functional annotation of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Name=Ewsr1; Synonyms=Ewsh;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6
                                                                                                                                                                                                                                                                                                                                                                                                                                  FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FANTOM Consortium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GRGMDRGGFGGRRGGPGGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NQCKAPKPEGFLPPPFPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PTAKAAVEWFDGKDFQGSKLKVSLARKKFPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SAIYVQGLNDSVTLDDLADFFKQCGVVKMKKTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PTAKAAVEWFDGKDFQGSKLKVSLARKKFPMNSMRGGMPPREGRGMPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SAIYVQGLNDNVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GRGRGGFDRGGMSRGGRGGGRGGLG-AGERGGFNKPGGPMDEGPDLDLGLPIDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (Mouse)
        TISSUE-Placenta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chordata; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     full-length mouse cDNA collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
        and
                                                                                                                                                                                                                                                                                                                                                                                                                                                   and extra embryonic
          extra
        embryonic tissue
                                                                                                                                                                                                                                                                                                                                                                            functional annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mue
                                                                                                          genes.";
                                                                                                                                                                                              Itoh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     656
                                                                                                                                                                                                                                                                                                                                                                            e
f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  479
                        S
                                                                                 밁
                                                                                                                               8
                                                                                                                                                                                      뮹
                                                                                                                                                                                                                               र्
                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RP SEQUENCE FROM N.A.

CSTRAIN=C57BL/6J; TISSUE=Placenta and extra embryonic tissue;

RA Adachi J., Alzawa K., Akahira S., Akimura T., Arai A., Aono H.,

RA Arakawa T., Bono H., Carninci P., Pukuda S., Fukunishi Y., Furuno M.,

RA Arakawa T., Hara A., Hayatsu N., Hiramoto K., Hiraoka T., Hori F.,

RA Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H.,

RA Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H.,

RA Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,

RA Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M.,

RA Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai K.,

RA Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai K.,

RA Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai K.,

RA Okazaki Y., Toya T., Yagami M., Tagawa A., Takahashi F., Tanaka T.,

RA Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T.,

RA Sogabe Y., Suzuki H., Yagamura T., Yasunishi A., Yoshida K., Yoshino M.,

RA Maramatsu M., Hayashizaki Y.;

RA Maramatsu M., Hayashizaki Y.;

RA MACD., Maramatsu M., Babali732.1; -.

RESP, O95218; 1NOZ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00076; RRM 1; 1.

Pfam; PF00076; RRM 1; 1.

Pfam; PF00641; zf-RanBP; 1.

PIRSF; PIRSF002101; RNA-binding_EWS; 1.

SMART; SM00360; RRM; 1.

SMART; SM00367; ZnF_RBZ; 1.

PROSITE; PS50102; RRM; 1.

PROSITE; PS01358; ZF_RANBPZ_1; 1.

PROSITE; PS01358; ZF_RANBPZ_2; 1.

SEQUENCE 655 AA; 68462 MW; 10C7F06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-20530913; PubMed=11076861; DOI=10.1101/gr.152600; Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P., Konno H., Akiyama J., Nishi K., Kiteunai T., Tashiro H., Itoh M., Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A., Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K., Pujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M., Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y., "RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer."; Genome Res. 10:1757-1771(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MGD; MGI:99960; Ewsrl.
GO; GO:0005634; C:nucleus; IDA.
InterPro; IPR001368; RNA-binding_EWS.
InterPro; IPR00504; RNA_rec_mot.
InterPro; IPR001876; Znf_RanGDP.
                                   361
                                                                                    301
                                                                                                                                     301
                                                                                                                                                                                        241
                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
SAIYVQGLNDSVTLDDLADFFKQCGVVKMVKRTGQPMIHIYLDKBTGKPKGDATVSYEDP
                                                                                                            GRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKFGGFMDEGFDLDLGFPFVDFDEDSDN
                                                                                                                                                                                                                      PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                          MOPVTAPPSYPPTSYSSSOPTSYDOSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                        MQPVTAPPSYPATSYSSTQPTSYDQSXSQQQPTYGQPXSXGQQSYSQQQPTSYY
                                                                                                                                                                                                                                                                                                                                                                                                  QPAYPTYGQQPTATAPTRPQDGNKPAETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YGQTAYATSYGQPPTGYSTPTAPQAYSQPVQGYGTGTYDSTTATVTTTQASYAAQTAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                        PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSLSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98.1%;
97.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 3564.5; DB 2; Length Pred. No. 2.3e-145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10C7F06A921668F3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                    AGERGGFNKPGGPMDEGPDLDLGLPIDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ű
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
```

```
ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                        RX Pubmed-1402039; DOI=10.1038/ng1285;
RA Ota T. Suzuki Y. Nishikawa T. Otsuki T., Sugiyama T., Irie R.,
RA Wakamatsu A., Hayashi K., Sato H., Nagai K., Kimura K., Makita H.,
RA Wakamatsu A., Hayashi K., Sato H., Nagai K., Kimura K., Makita H.,
RA Sekine M., Obayashi M., Nishi T., Shibahara T., Tanaka T., Ishii S.,
RA Yamamoto J. Saito K., Kawai Y., Isono Y., Nakamura Y., Nagahari K.,
RA Yamamoto J., Saito K., Kawai Y., Formati K.,
RA Murakami K., Yasuda T., Iwayanagi T., Wagatsuma M., Shiratori A.,
RA Murakami K., Yasuda T., Kohira H., Kondo H., Sugawara M.,
RA Sudo H., Hosoiri T., Kaku Y., Kodaira H., Kondo H., Shiyawara M.,
RA Takahashi M., Kanda K., Yokoi T., Furuya T., Kikkawa E., Omura Y.,
RA Abe K., Kamihara K., Katsuta N., Sato K., Tanikawa M., Yamazaki M.,
RA Alba K., Kamihara M., Watanabe S., Yosida M., Hotuta T., Kusano J.,
RA Ono Y., Takiguchi S., Watanabe S., Yosida M., Hotuta T., Kusano J.,
RA Anghori K., Takahashi-Fujii A., Hara H., Tanase T., Nomura Y.,
RA Musashino K., Yuuki H., Oshima A., Sasaki N., Aotsuka S.,
RA Musashino K., Yuuki H., Oshima A., Sasaki N., Aotsuka S.,
RA Moriya S., Momiyama H., Satoh N., Takami S., Terashima Y., Suzuki O.,
RA Makagawa S., Senoh A., Mizoguchi H., Goto Y., Shinizu F., Wakebe H.,
RA Hishigaki H., Watanabe T., Sugiyama A., Takemoto M., Kawakami B.,
RA Yamazaki M., Watanabe T., Sugiyama A., Takemoto M., Chmori Y.,
RA Ausabata A., Hikiji T., Kobatake N., Inagaki H., Ikema Y., Okamoto S.,
RA Kawabata A., Hikiji T., Kobatake N., Inagaki H., Ikema Y., Okamoto S.,
RA Mizushima-Sugano J., Satoh T., Shirai Y., Takahashi Y., Nakagawa K.,
RA Mizushima-Sugano J., Satoh T., Shirai Y., Takahashi Y., Nakagawa K.,
RA Mizushima-Sugano J., Satoh T., Shirai Y., Takahashi Y., Nakagawa K.,
RA Nakai K., Yada T., Nakamura Y., Ohara O., Isogai T., Sugano S.,
RA Nakai K., Yada T., Nakamura Y., Ohara O., Isogai T., Sugano S.,
RA Nakai K., Yada T., Nakamura Y., Ohara O., Isogai T., Sugano S.,
RA Nakai K., Satoh T., Shirai Y., Takahashi Y., Nakagawa K.,
RA Nakai K., Satoh T., Satoh H., S
EMBL; AK056681; BAB71252.1; -.
HSSP; OS5218; INOZ.
GO; GO:0005634; C:nucleus; IEA.
GO; GO:0003676; F:nucleic acid binding; IF
GO; GO:0008270; F:zinc ion binding; IEA.
InterPro; IPR001368; RNA-binding_EWS.
InterPro; IPR001876; Znf_RanGDP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q96MN4;
Q96MN4;
01-DEC-2001
01-DEC-2001
01-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hypothetical protein FLJ32119.
Homo aspiens (Human).
Eukaryota, Metazoa, Chordata,
Mammalia, Eutheria, Primates;
                                                                                                                                                                                Nat. Genet. 36:40-45(2004).
EMBL; AK056681; BAB71252.1;
                                                                                                                                                                                                                              "Complete sequencing cDNAs.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGIMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGPMGRMGGRGGDRGGFPPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PTAKAAVEWEDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVOHRAGDWOCPNPGCGNONFAWRTEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SAIYVQGLNDNVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (TrEMBLrel. 19, Created)
(TrEMBLrel. 19, Last seq
(TrEMBLrel. 26, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sequence update)
annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 656
                                                                                                                                                                                                                                                                                                       ₽.
                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            479
          Q6P3NO
ID Q6
AC Q6
AC Q6
DT 00
                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 599; Conserv
                                                                                                         05-JUL-2004 (TrEMBLrel. 27, Las 05-JUL-2004 (TrEMBLrel. 27, Las Hypothetical protein MGC76258. Name=MGC76258;
                                                                                                                                                                           Q6P3N0;
Q6P3N0;
05-JUL-2004
05-JUL-2004
05-JUL-2004
                              Xenopus tropicalis (Western clawed frog) (Eukaryota; Metazoa; Chordata; Craniata; Venmphibia; Batrachia; Anura; Mesobatrachia; Xenopodinae; Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         185
                                                                                                                                                                                                                                                                                                                                                                                                                                               109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                PRELIMINARY;
```

```
Pfam; PF00076; RRM 1; 1.

Pfam; PF00641; zf-RanBP; 1.

PIRSF; PIRSF002101; RNA-binding_EWS; 1

SMART; SM00360; RRM; 1.

SMART; SM00547; ZnF RBZ; 1.

PROSITE; PS01102; RRM; 1.

PROSITE; PS01109; ZF RANBP2 1; 1.

PROSITE; PS01199; ZF RANBP2 2; 1.

SEQUENCE 600 AA; 62478 MW; 1572CEB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
||||||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQBRRDRPY
                                                                                                          NQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFR
                                                                                                                                                                                                    GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                                         PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                     SAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                              SAIYVQGLNDSVTLDDLADFFKQCGVVXMVKRTGQPMIHIYLDKETGKPKGDATVSYEDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GRGRGGFDRGGMSRGGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGYYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 YSTGAQQQYSSQQQYSSQQQYSSAQQYSTAQQX
YSTGAQQQYSSQQQYSSQQQYSTAQYSSYSTAQYSQQAXTAQQX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                        GGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTEC
                                                                                                                                                                                                                                                                  PTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                               GRGRGGFDRGGMSRGGRGGGGGGGAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QPAYPAYGQQPAATA------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----PTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQGSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  90.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 3277; DB Pred. No. 4.4e-10; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               °;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1572CEBFC6023912 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; DB 2;
1.4e-133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  56;
600
                                         656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                       544
                                                                                                                              600
                                                                                                                                                                             484
                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                  424
                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                       364
                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                               304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
```

27, Created)
27, Last sequence up
27, Last annotation

update) on update)

₿

Vertebrata; Euteleostomi;

```
ঠ
                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SQUE DOR DOR PROPERTIES OF PRO
                                                                                                                                   S
                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 X MEDLINE=2238257; PubMed=12477932; DOI=10.1073/pnas.242603899;
X Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
A Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
A Altechul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
A Altechul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
A Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
A Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
A Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
A Roberto S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
A Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
A Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
A Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
A Villalon B., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
A Hitting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
Brak Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
Brak Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Sim
Matches 497;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; BC063928; AAH639281;
InterPro; IPR006162; Ppantne S.
InterPro; IPR006504; RNA rec mot.
InterPro; IPR000504; RNA rec mot.
InterPro; IPR000504; RNA rec mot.
InterPro; IPR0001876; Znf RanGDP.
Pfam; PF00641; zf-RanBP; 1.
SMART; SM00360; RRW; 1.
SMART; SM00347; ZnF RBZ; 1.
SMART; SM00547; ZnF RBZ; 1.
PROSITE; PS00012; PHOSPHOPANTETHEINE; UNKNOWN_1.
PROSITE; PS01358; ZF RANBP2_1; 1.
PROSITE; PS01358; ZF RANBP2_1; 1.
PROSITE; PS01358; ZF RANBP2_1; 1.
PROSITE; PS01358; ZF RANBP2_2; 1.
Hypothetical protein.
SEQUENCE 674 AA; 71082 MW; C4E34C7E95449E0D (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Klein S., Gerhard D.S.; Submitted (DEC-2003) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and mouse cDNA sequences.";
Proc. Natl. Acad, Sci. U.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Embryo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FISSUE=Embryo;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Jones S.J., Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Generation and initial analysis of more than 15,000
                                                                       301
                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                         222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYG
NKPGGPMDEGPDLDLGP-----PVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVV, 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQA-YGQQSYGTYGQPTDVSYTQAQTTA
                                                                       KSPYGQEPHQGFSSSGENRGSGGSDSRSRGRGMFERGGMSRGGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPAYPAYGOOPAATAPTRPODGNKPTETSOPOSSTGGYNOPSLGYGOSNYSYPOVPGSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SYGQSAYATSYGQPPTGYTAPAAPQAYSQPMQGYGSTGYDSTTATTTTTQATYAAPSAYG
                                                                                                                                       MGVYGQE-SGGFSGPGENRSMSGPDNRGRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGF
                                                                                                                                                                                                              QQSGYGQQSSYQAPPQQQQPPPTSYPPPSSSYSSQPPGQYGQQSSSYGQQSSYRPDHSSS
                                                                                                                                                                                                                                                                                 QQSSYGQQSSY-----GQQPPTSYPPQTGSY-SQAPSQYSQQSSSYGQQSSFRQDHPSS
                                                                                                                                                                                                                                                                                                                                                         PMQQVSAPPSYPPTSYSSSQTSSYEQSSYSQPSSYTQQSGYGQQASYSQQSSYGQPSSYG
                                                                                                                                                                                                                                                                                                                                                                                                                                PMQPVTAPPSYPPTSYSSTQPTSYDQS------SYSQQNTYGQPSSYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SQPAYPSYGQQPATTASARPQDGSKPADTSQPPPSTASYAQPSMGYSQSSYSYPQVPASY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MASTDYSTYSQTGAQQSYSAYTAQPTQGYAQTAQATYGQQSYGTYAQPTDASYTQAQTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71082 MW; C4E34C7B95449E0D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    71.6%;
71.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 2601; DB 2; Length 
Pred. No. 4.3e-104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99:16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   82; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      674;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                       359
                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                     274
                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                    221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17;
```

```
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                      WEDLINE-2238857; PubMed=12477932; DOI=10.1073/pnas.242603899;
WEDLINE-2238857; PubMed=12477932; DOI=10.1073/pnas.242603899;
With the straight of the straight 
EMBL; BC075120; AAH75120.1; -.
GO; GO:0005634; C:nucleus; IEA.
GO; GO:0003676; F:nucleic acid binding;
GO; GO:0008270; F:zinc ion binding; IEA.
InterPro; IPR006162; Ppantne S.
InterPro; IPR011368; RNA-binding_EWS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (JUN-2004) to the EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                       "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Xenopodinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Xenopus tropicalis (Western clawed frog) (Silurana tropicalis).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostom
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xenopus tropicalis (Western clawed frog)
Eukaryota; Metazoa; Chordata; Craniata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q6DJQ4
                                                                                                                                                                                       FISSUE=Embryo;
                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                               Jones S.J., Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     φ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                               FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EQLGGRIGGGRRGGPSKMDKSEHRQERRERPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EQMGGRRGG--RGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GP-GMRGGR-GLMDRGVP-GMFRGGRGGDRGGFR-GRGMDR-GFGGGRRGGPPGPPGPLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KINKRTGEPLVNLFMDKETGKPKGDGTVSFEDPPSAKTAIELCDGKDLNGNKVKVSLARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGGPPGPLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SPV-SGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPDG--PFPPPPPQGGERGRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLP-PPFPPPGGDRGRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SKPGGLLDDGPDLDLGPPMPLPLPLDLEDELESSTIYVQGLNDNVTVEEIVDFFKHCGDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KSILGSMRGGSILRDNRGQPPPLR------GGPMGRLGGRGGERGGFMPRGPRGPRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                673
                                                                            IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     656
                                                                                                                                            databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          419
```

```
RESULT 10
Q6NUX1
ID Q6NUX
AC Q6NUX
DT 05-JU
DT 05-JU
                                                                                                                           S
                                                                                                                                                     밁
                                                                                                                                                                             Ş
                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                       श्
                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
Q6NUX1;
Q6NUX1;
05-JUL-2004
05-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIRSF; PIRSF002101; RNA-binding_EWS; 1.

SMART; SM00360; RRM; 1.

SMART; SM00547; ZnF RBZ; 1.

PROSITE; PS00012; PHOSPHOPANTETHEINE; UNKNOWN_1.

PROSITE; PS50102; RRM; 1.

PROSITE; PS501358; ZF RAMBP2 1; 1.

PROSITE; PS50199; ZF RAMBP2 1; 1.

Hypothetical protein.

SEQUENCE 673 AA; 70995 MW; BD8A817F25991A74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00076; RRM 1; 1.
Pfam; PF00641; zf-RanBP; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro;
                                                                                                                                                           587
                                                                                                       642
                                                                                                                                 627
                                                                                                                                                                                    567
                                                                                                                                                                                                              530
                                                                                                                                                                                                                                                                 479
                                                                                                                                                                                                                                                                                         448
                                                                                                                                                                                                                                                                                                                     419
                                                                                                                                                                                                                                                                                                                                              388
                                                                                                                                                                                                                                                                                                                                                                        359
                                                                                                                                                                                                                                                                                                                                                                                      334 NKPGGPMDEGPDLDLGP------PVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVV
                                                                                                                                                                                                                                                                                                                                                                                                                           301 KSPYGOEPHOGFSSSGENRGSGGSDSRSRGRGMFERGGMSRGGR-GSRGGMG-GGDRAGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               496;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQA-YGQQSYGTYGQPTDVSYTQAQTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                               EOMGGRRGG--RGGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                           육=
                                                                                                                                                                                  GPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGGPPGPLM
                                                                                                                                                                                                           SPV-SGNVOHRAGDWOCPNPGCGNONFAWRTECNOCKAPKPDG--PFPPFPPPQGGERGRG
                                                                                                                                                                                                                              NPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLP-PPFPPPPGGDRGRG
;|
                                                                                                                                                                                                                                                                                 KPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRAGGDRGGFPPRGPRGSRG
                                                                                                                                                                                                                                                                                                                                 KMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARK
                                                                                                                                                                                                                                                                                                                                                                      SKPGGLLDDGPDLDLGPPMPLPLPLDLEDELESSTIYVQGLNDNVTVEEIVDFFKHCGDV
                                                                                                                                                                                                                                                                                                                                                                                                                                           MGVYGQE-SGGFSGPGENRSMSGPDNRGRGRGGFDRGGMSRGGRGGGRGGMSAGERGGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QQSSYGQQSSY-----GQQPPTSYPPQTGSY-SQAPSQYSQQSSSYGQQSSFRQDHPSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TQPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SYGQSAYATSYGQPPTGYTAPAAPQAYSQPMQGYGSTGYDSTTATTTTTQATYAAPSAYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MASTDYSTYSQTGAQQSYSAYTAQPTQGYAQTAQATYGQQSYGTYAQPTDASYTQAQTTA
                                                                                                       EQLGGRIGGGRRGGPSKMDKSEHRQERRERPY
                                                                                                                                                                                                                                                                 KSLLGSMRGGSLLRDNRGQPPPLR-----GGPMGRLGGRGGERGGFMPRGPRG
                                                                                                                                                                                                                                                                                                                    KINKRTGEPLVNLFMDKETGKPKGDGTVSFEDPPSAKTAIELCDGKDLNGNKVKVSLARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QQSGYGQQSSYQAPPQQQQPPPTSYPPPSSSYSSQPPGQYGQQSSSYGQQSSYRPDHSSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PMQPVTAPPSYPPTSYSSTQPTSYDQS------SYSQQNTYGQPSSYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SQPAYPSYGQQPATTASARPQDGSKPADTSQPPPSTASYAQPSMGYSQSSYSYPQVPASY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IPR000504;
IPR001876;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
(TrEMBLrel. (TrEMBLrel.
                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RNA_rec_mot
Znf_RanGDP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71.2%; Score 2586.5; 71.7%; Pred. No. 1.8
. 27,
. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               59;
Created)
Last sequence update)
                                                                                                                                                           -GMFRGGRGGDRGGFR-GRGMDR
                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BD8A817F25991A74 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                       624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .8e-1
                                      ₿
                                                                                                       673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 2; Length
;-103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               82; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                    626
                                                                                                                                                                                                                                       566
                                                                                                                                                                                                                                                                 529
                                                                                                                                                                                                                                                                                                                    478
                                                                                                                                                                                                                                                                                                                                              447
                                                                                                                                                                                                                                                                                                                                                                        418
                                                                                                                                                                                                                                                                                                                                                                                                  387
                                                                                                                                                                                                                                                                                                                                                                                                                           358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     59
                                                                                                                                                           641
                                                                                                                                                                                                              586
                                                                                                                                                                                                                                                                                           507
                                                                                                                                                                                                                                                                                                                                                                                                                                                    333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
```

```
문
                              8
                                                                         밁
                                                                                                                S
                                                                                                                                                       문
                                                                                                                                                                                     S
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                              RX LIBSUB-ENDLYY;

RX MEDLINE-22386257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RA Strausberg R.L., Feingold B.A., Grouse L.H., Derge J.G.,

RA Klausner R.D., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D.,

RA Altschil S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

RA Altschil S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

RA Hopkins R.F., Jordan R., Farmer A.A., Rubin G.M., Hong L.,

RA Staplecton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.B.,

RA Staplecton M., Jordan T.B., Toshiyuki S., Carninci P., Prange C.,

RA Staplecton M., Soares M.B., Bonaldo M.F., Casrinci P., Prange C.,

RA Raha S.S., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

RA Rahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

RA Willialon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

RA Willialon D.K., Muzny D.M., Sodergren B.D., Dickson M.C.,

RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

RA Generation and Initial analysis of more than 15,000 full-length human

"Generation and miltial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 395
                                                                                                                                                                                                                                                                                                                                                                                                          Strausberg R.;
Submitted (APR-2004) to the EMBL/GenBank/DDBJ
EMBL; BC066397; AAH68397.1; -.
ZFIN; ZDB-GENE-030131-2317; wu:fc04c01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Brachydanio rerio (Zebrafish) (Danio rerio).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii, Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Danio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Wu:fc04c01 protein (Fragment)
ORFNames=wu:fc04c01;
                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR000504; RNA_rec_mot.
InterPro; IPR005829; Sug_transporter.
InterPro; IPR01876; Znf_RanGDP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=Embryo;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rissum=Embryo;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                      171
166
                                                                           121
                                                                                                                                                                                                                                                                                                                  395;
                                                                                                                                                         61
                                                                                                                                                                                              58
                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                 TATYGQTAYATSYGQPPT---GYTTPTA-PQAYSQPVQGYGTGAYDTTTA---TVTTTQA 110
                                                                                                                                                                                                                                    SAADYNSYGQAGSQQGYGSYPAQPSQPGYGQGTQQSYGQQQGYGSYSQPADSTYSQTSGS
                                  SYPOVPGSYPMOPYTAPPSYPPTSYSSTOPTSYDOSYSOONT----YGQPSSYGQQSYG
                                                                                                        SYAAQSAYGTQPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNY
                                                                                                                                                       SSSYGQQPYGSSYGQQPPASGSYNAASATPQGYTQPVQGYGSSSYDSSTAAASSTSNTQT
                                                                                                                                                                                                                                                                                                                                                                                              624 AA;
                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                              64731 MW;
                                                                                                                                                                                                                                                                                                              51.9%; Score 1885.5; DB 2; 56.7%; Pred. No. 1.7e-73; tive 70; Mismatches 117;
                                                                                                                                                                                                                                                                                                                                                                                              D0113DF02861F221 CRC64;
QQSTYSQQQQGGYQQQQGYGQQSSYS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            databases
                                                                                                                                                                                                                                                                                                                  Indels 115;
                                                                                                                                                                                                                                                                                                                                                     Length 624;
                                                                                                                                                                                                                                                                                                                Gaps
  196
                                      227
                                                                             165
                                                                                                                                                         120
                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                             57
```

```
RESULT

QOCRS5

ID CRS5

ID CRS5

ID CRS5

ID CRS6

QO DT 011

DE MILL

DE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ર્
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q9CRS5;
Q9CRS5;
01-JUN-2001
01-JUN-2001
01-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
STRAIN-C57BL/6J; TISSUE-Head;
MEDLINE-99279253; PubMed=10349636; DOI=10.10
Carninci P., Hayashizaki Y.;
"High-efficiency full-length cDNA cloning.";
Meth. Enzymol. 303:19-44(1999).
                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Head;
MEDLINE=21085660; PubMed=11217851;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAR-2004 (TrEMBLrel. 17, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Mus musculus 17 days embryo head cDNA, RIKEN full-length
library, clone:3300002D11 product:Ewing sarcoma homolog,
sequence. (Fragment).
                                                                                                                                                                                                                                                  Nature [3]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUN-2001 (TrEMBLrel. 17, 01-JUN-2001 (TrEMBLrel. 17, 01-MAR-2004 (TrEMBLrel. 26, Mus musculus 17 days embryo
SEQUENCE FROM N.A. STRAIN=C57BL/6J; T
                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN-C57BL/6J; TISSUE-Head;
                                                                                                                                                                                                                                                                                     RIKEN FANTOM Consortium; "Functional annotation of a full-length
                                                                      the RIKEN Genome Exploration Research Group "Analysis of the mouse transcriptome based 60,770 full-length cDNAs.";
Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mammaı
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Name=Ewsrl; Synonyms=Ewsh;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11
                                                                                                                                                                        FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ia, Eutheria,
                                                                                                                                                                                                                                                                   409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SAGERGGFNKPGGEMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G-SRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWPDGKDPQGSKLKVSLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RGRGGPGGMRGGRGGLMDRGGPGGM--FRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMG-GRGGDRGGFPPR-GPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       I IR INKRTGLPAVNIYTDKDTGKPKGDATLSYEEPPSAKAAVEWFDGKDFQGKKLKVSMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IAGDRGGFSKPG-----DGEMGAPEEQD-DSENSTIYITGLTENATLEEVADFFKHSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PDHQNGGGYSGPESGGYGGPGEGRGMGGGENRGRGGFDRGMMRGGGGMRGGMSRGGMG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QDHPSSMGVYGQESGGFSGPGENRSMSGPDNRGRGRGFDRGGMSRGG--RGG-GRGGMG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQGGYQQTPPQQQQAPPSSYAPPSGSYGQPSASQYGQQGSTGGGYGQSDYKPPNQYGSYR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQSSY-----GQQPPTSYPPQTGSYSQ-APSQYSQQSSS---YGQQ-----SSFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GMGRGGPT-GGNMQQRAGDWQCPNAGCGNQNFAWRMECNQCKAPKPEGFGPPPF-PPGGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RRKPMMGMMRGGM-----PMRGDRGGMMGRGGMMGRGGMGRGGDRGGFMPRGGPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (Mouse)
TISSUE-Head;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -MDRGGPGGPGGFRGGRGVDRGGFR-GRGMDRGGFGG---RGRGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata; E
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                       DOI=10.1038/35055500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOI=10.1016/S0076-6879(99)03004-9;
                                                                                                                                          Group
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           333
                                                                                                                                                                                                                                                                                             mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ₿
                                                                                                                         9
                                                                                                                                             Phase
                                                                                                                      hase I & II
functional
                                                                                                                                                                                                                                                                                             cDNA collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostomi;
; Murinae; Mus
                                                                                                                                             Team;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           enriched
full insert
                                                                                                                         annotation
                                                                                                                         얁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    316
```

```
S
                                                                    문
                                                                                                       S
                                                                                                                                                    片
                                                                                                                                                                                       S
                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REPUBLICE FROM N.A.

REPUBLICATION OF TISSUE-Head;

RESTRAINC578L/6J; TISSUE-Head;

RESTRAINC578L/6J; TISSUE-Head;

RAdachi J., Aizawa K., Akahira S., Akimura T., Arai A., Aono H.,

AAdachi J., Aizawa K., Akahira S., Fukuda S., Fukunishi Y., Furuno M.,

RA Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,

RA Arakawa T., Hara A., Hayatsu N., Hiramoto K., Hiraoka T., Hori F.,

Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H.,

RA Imotani K., Ishii Y., Konno H., Kouda M., Koya S., Kurihara C.,

RA Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,

RA Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M.,

RA Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,

RA Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,

RA Okazaki Y., Okido T., Owa C., Saito H., Saito R., Shinagawa A., Shiraki T.,

RA Okazaki Y., Shibata K., Shibata Y., Shinagawa A., Shiraki T.,

RA Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T.,

RA Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T.,

RA Sogabe Y., Suzuki H., Tagamura T., Yasunishi A., Yoshida K., Yoshino M.,

RA Muramateu M., Hayashizaki Y.,

RA Muramateu M., Hayashizaki Y.,

RA Shiraki T., Yamamura T., Yasunishi A., Yoshida K., Yoshino M.,

REMEL, AKO14366; BAB29301.1; -.

REMEL, AKO14366; BAB29301.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MGD; MGI:99960; Ewsr1.

GO; GO:0005634; C:nucleus; IDA.
InterPro; IPR000504; RNA rec mot.
InterPro; IPR001876; Znf RanGDP.
Pfam; PF000776; RRM 1; 1.
Pfam; PF000641; zf-RanBP; 1.
SMART; SM00360; RRM; 1.
SMART; SM00360; RRM; 1.
PROSITE; PS50102; RRM; 1.
PROSITE; PS5012; ZF-RANBP2 1; 1.
PROSITE; PS50199; ZF-RANBP2 1; 1.
PROSITE; PS50199; ZF-RANBP2 1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-20550913; PubMed-11076861; DOI=10.1101/gr.152600; MEDLINE-20550913; PubMed-211076861; DOI=10.1101/gr.152600; Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P., Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M., Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A., Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K., Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M., Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Okazaki Y., Muzamatsu M., Inoue Y., Kira A., Hayashizaki Y.; "RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100; Carninci P., Shibata Y., Hayateu N., Sugahara Y., Shibata Y., Konno H., Okazaki Y., Muramatsu M., Hayatshizaki Y.; Konno H., Okazaki Y., Muramatsu M., Hayatshizaki Y.; "Normalization and subtraction of cap-trapper-selected cD prepare full-length cDNA libraries for rapid discovery of Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genome Res.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                          564
                                                                    181
                                                                                                          504
                                                                                                                                                      121
                                                                                                                                                                                           444
                                                                                                                                                                                                                                                                                                                                                                   324
                                                                                                                                                                                                                                                                               384
                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                             328;
                                                                                                                                                                                                                                                                                                                         _
                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                            LARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRKGGDRGGFPPRGPR
                                                                                                                                                                                                                                                                                                                                                  MGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQ
GRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGGPPG
                                                                                                                                                                                                                                                              CGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVS
                                                                                                     GSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGDR
                                                                                                                                                                                                                                                                                                                       LGSÄGERGGFNKPGGPMDEGPDLDLGLPIDPDEDSDNSÄIYVQGLNDNVTLDDLADFFKQ
                                                                                                                                                    LARKKPPMNSMRGGMPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPRGPR
                                                                                                                                                                                                                                     CGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10:1757-1771 (2000).
                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=Head;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               34617 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                               51.6%;
98.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qر
c_mot.
                                                                                                                                                                                                                                                                                                                                                                                                         Score 1874; D
Pred. No. 3.1e
4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                         4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAEDECA353FF2F07 CRC64;
                                                                  PGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGDR
                                                                                                                                                                                                                                                                                                                                                                                                                               DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                           ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Shibata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of new
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Carninci P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                     333;
                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               genes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Itoh
                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                          623
                                                                  240
                                                                                                          563
                                                                                                                                                    180
                                                                                                                                                                                              503
                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                               443
                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                           0
```

```
RESULT OF REAL PROPERTY OF STANDARD BEING BEING STANDARD BEING STA
                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WEDLINE=22385257; PubMed=12477932; DOI=10.1073/pnas.242603899;

X Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

X Klausner R.D., Collins F.S., Wagner L.H., Schaefer C.F., Bhat N.K.,

X Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

X Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

X Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

X Hopkins R.F., Jordan H., Moore T., Max S.I., Carninci P., Prange C.,

X Hopkins R.F., Jordan H., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

X Eapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

X Scapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

X Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

X Brownstein M.J., Wadin T.B., Toshiyuki S., Carninci P., Prange C.,

X Brownstein M.J., Modernan K.J., Malek J.A., Gunaratte P.H.,

X Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gibbs R.M.,

X Hilalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

X Hilalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

X Pahey J., Helton B., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

X Milting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

X Multing M., Madan A., Touchman J.W., Green B.D., Dickson M.C.,

X Hones S. J. Marra M.A., Schmutz J., Myers R.M., Schein J.E.,

X Jones S. J. Marra M.A., Schmutz J., Schmerch A., Schein J.E.,

X Jones S. J. Marra M.A.
                                                                                 Query Match
Best Local S
Matches 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q75ZR6 PRELIMINARY; PKI; 023 An.
Q75ZR6;
Q1-CCT-2003 (TrEMBLrel. 25, Created)
01-CCT-2003 (TrEMBLrel. 25, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Wu:fc04c01 protein (Fragment)
ORFNames=wu:fc94c01;
ORFNames=wu:fc94c01;
                                                                                                                                                                                         PROSITE;
NON TER
SEQUENCE
                                                                                                                                                                                                                                      Pfam; PF00076; RRM, 1; 1.

Pfam; PF000641; zf-RanBP; 1.

SMART; SM00360; RRM; 1.

SMART; SM00547; ZnF_RBZ; 1.

PROSITE; PS00126; RRM; 1.

PROSITE; PS00216; SUGAR THANSPORT_1; UNKNOWN_1.

PROSITE; PS01358; ZF_RANBP2_1; 1.

PROSITE; PS50199; ZF_RANBP2_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                pracnydanio rerio (Zebrafish)
Eukaryota; Metazoa; Chordata;
Actinopterygii; Neopterygii; T
Cyprinidae; Danio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Jones S.J., Marra M.A.;
"Generation and initial analysis
and mouse cDNA sequences.";
proc. Natl. Acad. Sci. U.S.A. 99:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Strausberg R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=7955;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rissuz=Embryo;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                    395;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EC056281; AAH56281.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZDB-GENE-030131-2317; wu:fc04c01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q9Y5S9; 1P27
1 MAS-TDYSTYSQAAAQQGYSAYTAQPTQ-GYAQ-TTQAYG-QQSYGTYGQPTDVSYTQAQ
                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPPG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                   IPR000504; RNA_rec_mot.
IPR005829; Sug_transporter.
IPR001876; Znf_RanGDP.
                                                                                                                                                                                            623
                                                                                    Conservative
                                                                                                                                                                                            AA;
                                                                                                                                                                                            64517 MW;
                                                                                                             51.3%;
                                                                                    67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL/GenBank/DDBJ
                                                                           Pred. No. 1.3e
7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ) (Danio rerio).; Craniata; Vertebrata; Euteleostomi; Teleostei; Ostariophysi; Cypriniform
                                                                                                          Score 1865; DB 2; 
Pred. No. 1.3e-72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99:16899-16903 (2002)
                                                                                                                                                                                            BE47E2ED7FEB9F60 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        얁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        more
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  than 15,000
                                                                                    117;
                                                                                                                                      2
                                                                                                                                      Length
                                                                                    Indels 116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cypriniformes;
                                                                                                                                      623;
                                                                              Gaps
                                                                                    33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
```

```
RESULT OPERATE OF THE PROPERTY OF THE PROPERTY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q9BWA2;
01-JUN-2001
01-JUN-2001
01-MAR-2003
MEDINES-2388/57; PubMed=12477932; DOI=10.1073/pnas.242603899;
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Klausner R.D., Collins F.S., Wagner L., Shemmen C.M., Schuler G.D.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (Human)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q9BWA2
                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EWSR1 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TSYGGQASYGTQSAYPGYGQQPAAAAP------PSSYSSGSQQPA-GYEQS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QASYAAQSAYGTQPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGPPGPLMEQMGGRRGGRGGPGKMD-KGEHRQERR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GDRGRGGPGGMRGGRGGLMDRGGPGGM--FRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRGMGRGGPT-GGNMQQRAGDWQCPNAGCGNQNPAWRMECNQCKAPKPEGFGPPPF-PPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MARRKPMMGMMRGGM--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMG-GRGGDRGGFPPR-G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SYS-----QQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GSSSSYGOOPYGSSYGOOPPASGSYNAASATPOGYTOPVOGYGSSSYDSSTAAASSTSNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GDRGRGGPGGMRGGRG--MDRGGPGGPGGFRGGRGVDRGGFR-GRGMDRGGFGG---RGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRG-SRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MGIAGDRGGFSKPG------DGEMGAPEEQD-DSENSTIYITGLTENATLEEVADFFKH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YRPDHQNGGGYSGPESGGYGGPGEGRGMGGGENRGRGGFDRGMMRGGGGMRGGMSRGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FRODHPSSMGVYGOESGGFSGPGENRSMSGPDNRGRGRGGFDRGGMSRGG--RGG-GRGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YGQQSSY-----GQQPPTSYPPQTGSYSQ-APSQYSQQSSS---YGQQ-----SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NYSYPOVESYEMOPVTAPESYPETSYSSTOPTSYDOSSYSOONT---YGQESSYGOOSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   --TTATYGQTAYATSYGQPPT---GYTTPTA-PQAYSQPVQGYGTGAYDTTTA---TVTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MASAADYNSYGQAGSQQGYGSYPAQPSQPGYGQGTQQSYGQQQGYGSYSQPADSTYSQTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YSQQGGYQQTPPQQQQAPPSSYAPPSGSYGQPSASQYGQQGSTGGGYGQSDYKPPNQYGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (TrEMBLrel. (TrEMBLrel.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17,
17,
23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PMRGDRGGMMGRGGMMGRGGDRGGFMPRGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -----QQSTYSQQQQGGYQGQQGGYGQQSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
```

```
Q803EJT 14
Q803E
ID Q803E
AC Q803E
AC Q803E
AC Q803E
AC Q803E
AC Q803E
AC Q803E
C9C C9C
C9C
CYPTI
COC CYPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCREEN RADER RADER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 326
STRAIN-AB; TISSUE-whole body;

MEDLINB-22388257; pubMed112477932; DOI=10.1073/pnas.242603899;

Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q803E3; PRELIMINARY;
Q803E3; THEMBLEL 24,
01-JUN-2003 (THEMBLEL 24,
01-JUN-2003 (THEMBLEL 24,
01-MAR-2004 (THEMBLEL 26,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted
EMBL; BC00
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zgc:55864 protein.
Name=fusl; Synonyms=zgc:55864;
Brachydanio rerio (Zebrafish) (Danio rerio).
Eukaryota; Metazoa; (Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Danio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green B.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.K.Zywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.
                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Strausberg R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Jones S.J., Marra M.A.;
"Generation and Initial analysis of more than 15,000 and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rissum=Muscle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tted (NOV-2000) to the EMBL/GenBank/DDBJ databases
BC000527; AAH00527.1; -.
NCE 354 AA; 37620 MW; AE4B8FCDF458390B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        326;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GRGRGGFDRGGMSRGGRGGRGGMGLQSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GRGRGGFDRGGMSRGGRGGGRGGMGSAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQESGGFSGPGENRSMSGPDNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQSSYGQQSPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QPAYPAYGQQPAATAPTRPQDGKKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PPQTGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPSSYGQQSSYGQQPPTSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYSYPQVPGSYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQASYAAQSAYGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    48.3%;
llarity 99.1%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
Last sequence up
Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. 5e-0
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1753; DB 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ω
•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
            S.J.,.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
```

```
밁
                       S
                                                    문
                                                                         S
                                                                                                     よ
                                                                                                                              S
                                                                                                                                                             뮍
                                                                                                                                                                                   र्
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (MANT-2007)

EMBL; BC044518; AAH44518 1; -...

ZFIN; ZDB-GENE-030131-1600; fusl.

InterPro; IPR000504; RNA rec mot.

InterPro; IPR000504; RNA [1].

Pfam; PF00076; RRM 1; 1.

Pfam; PF00076; RRM 1; 1.

SMART; SM00360; RRM; 1.

SMART; SM00360; RRM; 1.

PROSITE; PS01358; ZP RANBP2 1; 1.

PROSITE; PS0199; ZF RANBP2 1; 1.

PROSITE; PS0199; ZF RANBP2 2; 1.

SEQUENCE 578 AA; 60625 MW; E950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bosak S.A., McBwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Buffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S. Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Strausberg R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Jones S.J., Marra M.A.; "Generation and initial analysis of more than 15,000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                        513
                                                                                                         346
                                                                                                                                     396
                                                                                                                                                                288
                                                                                                                                                                                                                                                                            183
                                                    406
                                                                               456
                                                                                                                                                                                          336
                                                                                                                                                                                                                      236
                                                                                                                                                                                                                                                 278
                                                                                                                                                                                                                                                                                                       228
                                                                                                                                                                                                                                                                                                                                   146
                                                                                                                                                                                                                                                                                                                                                                                          119
                                                                                                                                                                                                                                                                                                                                                                                                                    109
450
                                                                                                                                                                                                                                                                                                                                                             169
                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          343;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MAS-TDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPT---DVSYTQAQ
                                                                                                                                                                                                                                                                                                                                                                                                                    QASYAAQSAYGTQPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTA-TYGQTAYATSYGQ------PPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTT
               GNVQHRAGDWQCENPGCGNQNFAWRTECNQCKAPKPEGF-LPPPFPPPPGGDRGRGGPGGM
                                                                    GGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPR-GPRGSRGNPSG--G
                                                                                                        PMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMR
                                                                                                                                                                                                                YSQ--GVSGGYPGSQRG----GYQDGGRDGYDRGGPR--GRGMGRGGMGIAGDRGGPNK
                                                                                                                                                                                                                                                                            PSAGAYAQQQYGSTYGQAAATAAAAPAAYGTP-QPGAYTQPAQSYGASSYTGSTA-APAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MASVTNYSSYNQAGAQQSYGSYTAPPAQTYGQTAQGYTQQDYSSYAQPAAAPEATYSQAA
                                                                                                                                                                            PGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVXMNKRTGQ
                                                                                                                                                                                                                                                 YGQESGGFSG--PGENRSMSGPDNRGRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNK
                                                                                                                                                                                                                                                                                                                                                                                          QASYGSQPGYSTQPAYSGYSQQPAASA------
                                                       GGMPMR
                                                                                                                                                                PGGPMRGGMDRDMGHP-
                                                                                                                                                                                                                                                                                                       -QQSSYG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (JAN-2003) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=Whole body;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         43.5%; Score 1579; D
50.1%; Pred. No. 2.1e
cive 65; Mismatches
                                                                                                                                                                                                                                                                                                      -QQPPTSYPPQTGSYSQAPSQYSQQSSYGQQSSFRQDHPSSMGV
                                                                                                                                                               -GEQDSENSTIYITGLTENATLPEMAEFFKHTGAIRINRRLNQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99:16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                E959AACAD7004CD8 CRC64;
                                                    GGPGMDRGGMMGRGGERGGFPPRGGPRGGMGWNGGPQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            136;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .s.
                        571
                                                    449
                                                                               512
                                                                                                           405
                                                                                                                                      455
                                                                                                                                                                345
                                                                                                                                                                                            395
                                                                                                                                                                                                                      287
                                                                                                                                                                                                                                                 335
                                                                                                                                                                                                                                                                             235
                                                                                                                                                                                                                                                                                                       277
                                                                                                                                                                                                                                                                                                                                    182
                                                                                                                                                                                                                                                                                                                                                              227
                                                                                                                                                                                                                                                                                                                                                                                                                     168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                           145
```

```
RESULT

ID

OBORNAT

ID

OBORNAT

RA

OBORNAT

OB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WEDLINE=22386257; PubMed=12477932; DOI=10.1073/pnas.242603899;
AS Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
AS Klausner R.D., Collins F.S., Magner L., Shenmen C.M., Schuler G.D.,
AR Klausner R.D., Collins F.S., Magner L., Shensen C.M., Schuler G.D.,
AR Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
AR Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
AR Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
AR Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
AR Hopkins R.F., Jordan H., Moore T., Max, Rubin G.M., Hong L.,
AR Scapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
AR Scapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
AR Brownstein M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,
AR Brownstein M.J., Wadin T.B., Toshiyuki S., Carninci P., Prange C.,
AR Brownstein M.J., Wadin T.B., Toshiyuki S., Carninci P., Prange C.,
AR ARICHARD S., Moorley K.C., Hale S., Garcia A.M., Gunaratte P.H.,
AR Hichards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
AR Hilalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
AR Hilalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
AR Hilalon D.K., Walsh R., Wong A.C., Shevchenko Y., Bouffard G.G.,
AR Holling M., Madan A., Young A.C., Shevchenko Y., Butterfield Y.S.,
AR Karywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
Arnes G. T. Marra M. A.
                                                                                                               Query Match
Best Local S
Matches 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q6NWA7
Q6NWA7;
Q6NWA7;
Q6NWA7;
Q5-JUL-2004 (TrEMBLrel. 27, Created)
Q5-JUL-2004 (TrEMBLrel. 27, Last sequence update)
Q5-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Mu:fb75g09 protein (Fragment).
Name=fusl; Synonyms=wu:fb75g09;
Name=fusl; Synonyms=wu:fo75g09;
                                                                                                                                                                                                                                                              PROSITE;
PROSITE;
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR000504; RNA rec mot.
InterPro; IPR001876; Znf_RanGDP.
Pfam; PF00075; RRM 1; 1.
Pfam; PF000641; zf-RanBP; 1.
SMART; SM00360; RRM; 1.
SMART; SM00547; ZnP_RBZ; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Brachydanio rerio (Zebrafish) (Danio rerio).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Danio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databases EMBL; BC067661; AAH67661.1; - ZFIN; ZDB-GENE-030131-1600; fusl.
                                                                                                                                                                                                                                                                                                                               PROSITE; PS50102; RRM; 1.
PROSITE; PS01358; ZF RANBP2_1; 1.
PROSITE; PS50199; ZF_RANBP2_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=7955;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=Embryo;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Generation and initial analysis of more than 15,000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Jones S.J., Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mouse cDNA sequences.";
c. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                572
                                                                                                                   340;
                                                                                                                                                  Similarity
TDYSTYSQAAAQQGYSAYTAQPTQGYAQTT-QAYGQQSYGTYGQPT---DVSYTQAQTTA 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GRRGMGPPGKMEMRDHRQERRERPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RGGRG--MDRGGPGGM-RGGWGGDRGGFRGRGGWDRGGFRGGSRGGP------PMDR 553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGGPPGPLMEQMGG
                                                                                                                                                                                                                                                                 575 AA; 60365 MW;
                                                                                                           43.1%; Score 1566; DB 2; Length 575;
49.9%; Pred. No. 7.7e-60;
tive 65; Mismatches 141; Indels 136;
                                                                                                                                                                                                                                                                 A1650072377A7629 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              full-length human
                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                631
                                                                                                                   26
```

```
Ś
                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ď
밁
                                                      片
                                                                                 Ś
                                                                                                              닭
                                                                                                                                     5
                                                                                                                                                                       밁
                                                                                                                                                                                                 8
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . 당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                       506
                                                                                    575
                                                                                                              450
                                                                                                                                           516
                                                                                                                                                                       406
                                                                                                                                                                                                    459
                                                                                                                                                                                                                                  346
                                                                                                                                                                                                                                                            399
                                                                                                                                                                                                                                                                                          288
                                                                                                                                                                                                                                                                                                                    339
                                                                                                                                                                                                                                                                                                                                                 236
                                                                                                                                                                                                                                                                                                                                                                            281
                                                                                                                                                                                                                                                                                                                                                                                                         183
                                                                                                                                                                                                                                                                                                                                                                                                                                     230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       112
554
                           635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ۳
                                                                                                                                                                                                                                                HIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGL 458
                                                                                                                                                                                                                                                                                                                                                                             ESGGFSG---PGENRSMSGPDNRGRGRGGFDRGGMSRGGRGGGRGGMGSAGERGGFNKPGG 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAYAQQQYGSTYGQAAATAAAAPAAYGTP-QPGAYTQPAQSYGASSYTGSTA-APAAQAS
                         GRGGPGKMDKGEHRQERRDRPY
                                                       န္ပ
                                                                                                                                                                                         PPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPR-GPRGSRGNPSG--GGNV
                                                                                                                                                                                                                                  NIYTDKDSGKPKGDATLSYBEPAFAKAAVEHFDGKEFQGRRLKVSMARRKPMIGGMRGGM
                                                                                                                                                                                                                                                                                                                                                                                                         SAYGQGQPPQQHQQGPPAAYPPQ-GSSSYAQTQYGQQSA---PQNDYQQNPYNS---YSQ
                                                                                                                                                                                                                                                                                                                                                                                                                                    SSYG------QQPPTSYPPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHPSSMGVYGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YAAQSAYGTQPAYPAYGQQPAATAPTRPQDGNKPTETSQPQSSTGGYNQPSLGYGQSNYS 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -TYGQTAYATSYGQ------PPTGYTTPTAPQAYSQPVQGYGTGAYDTTTATVTTTQAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TNYSSYNQAGAQQSYGSYTAPPAQTYGQTAQQGYTQQDYSSYAQPAAAPEATYSQAAPSA 60
                                                                        RGGIMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPPGPPMEQMGGRRG
                                                                                                              QKRAGDWECPNAGCGNQNFSWRMECNQCKAPKPEGLGTSPPF-SPGGERGR--
                                                                                                                              OHRAGDWQCDNPGCGNQNFAWRTECNQCKAPKPEGF-LPPPFPPPPGGDRGRGGPGGMRGG
                                                                                                                                                                                                                                                                                          PMRGGMDRDMGHP--GEQDSENSTIXITGLTENATLPEMAEFFKHTGAIRINRRLNQPAI
                                                                                                                                                                                                                                                                                                                    PMDEGPDLDLGPPVDPDEDSDNSAI YVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMI
                                                                                                                                                                                                                                                                                                                                                 --GGVSGGYPGSQRG----GYQDGGRDGYDRGGPR--GRGMGRGGMGIAGDRGGFNKPGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OO--OSSSOOSSSOOSSANOOSSSSOOSSASSASSOOSSSSOOSSSOOSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YGSQPGYSTQPAYSGYSQQPAASA-----
GMGPPGKMEMRDHRQERRERPY
                                                       -MDRGGPGGM-RGGWGGDRGGFRGRGGMDRGGFRGGSRGGP-----PMDRGRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -----PQSYSASSQPAYNQSAYSQPAGYSQPGYQAQQPGYGQQQQ
                                                                                                                                                                         GGPGMDRGGMMGRGGERGGFPPRGGPRGGMGWNGGPQPGNV
                           656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ------
                                                                                                                  -GGMRGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   118
                                                                                                                                                                                                                                    405
                                                                                                                                                                                                                                                                                            345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  111
                                                                                      634
                                                                                                                                                                                                       515
                                                                                                                                                                                                                                                                                                                       398
                                                                                                                                                                                                                                                                                                                                                    287
                                                                                                                                                                                                                                                                                                                                                                                                          235
                                                                                                                                                                                                                                                                                                                                                                                                                                       280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             142
                                                                                                                  505
                                                                                                                                              574
                                                                                                                                                                          449
```

Search completed: February 18, 2005, 15:12:07 Job time : 181 secs

Ś

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Command line parameters:

-MODEL-frame+ p2n.model -DEV=xlp
-MODEL-frame+ p2n.model -DEV=xlp
-MODEL-frame+ p2n.model -DEV=xlp
-Q-/Ggn2_1/USPTO_Spool_p/US10791017/runat_17022005_125807_22074/app_query.fasta_1.1358
-DB=GENEMb1 -QFMT=fastap -SUFFIX=p2n.rge -MINMATCH=0.1 -LGOPCL=0 -LGOPEXT=0
-UNITS-blits -START=1 -END=-1 -MARTIX-blosum62 -TRANS-human40.cdi -LIST=45
-DOCALIGN=200 -THR_SCORE-pct -THR_MAX=100 -THR MIN=0 -ALIGN=15 -MODE-LOCAL
-OUTFMT=pto -NORM-ext -HEAPSIZE=50 -MINLEN=0 -MAXLEN=200000000
-USER-US10791017_@CGN 1 1 7357_@runat 17022005_125807_22074 -NCPU=6 -ICPU=3
-NO_MMAP -LARGEQUERY -NEG_SCORES-0-S-runat-17022005_105-LONGLOG
-DEV_TIMEOUT=120 -MARN_TIMEOUT=30 -THREADS=1 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OM protein - nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                            Query
Score Match Length DB ID
       3633
3633
3633
       100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    February 20, 2005, 16:33:24 ; Search time 7016.69 Seconds (without alignments) 4530.143 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-791-017A-2
3633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GenEmbl: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4708233 seqs, 24227607955 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MASTDYSTYSQAAAQQGYSA......GGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                        gb_ba:*
gb_in:*
gb_in:*
                                                                                                                                                                                                                                                      gb_ov:*
       1971
2182
2371
2371
       66912
     BC004817
A36460
AR080100
                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9416466
BT007796 Synthetic
BC004817 Homo sapi
A36460 Sequence 1
AR080100 Sequence
                                                                                            Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0 0 0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0 0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  იი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ი
```

		••				12 12	• ••	
4444	440	35 38 38	332	28	2222	2100	15 16 17	10 10 11 11
ррро	1908.5 1908.5	2586.5 2586.5 2338 2292	2822.5 2819.5 2819.5 2819.5 2819.5 2730	200	3210 3210		3579 3571.5 3571.5 3571.5 3564.5 3291.5	3633 3633 3618.5 3618.5 3605.5
51.7 50.0 49.2	0 5 5 5	71.6 71.2 64.4 63.1	-0000		4444		. 6 1 2 2 5	100.0 100.0 100.0 99.6 99.6 99.6 99.6
2448 2473 1864	275105 211189 217080	2665 2683 270337 270324	1783 226400 235241 263925 7293	2440 221444 221444 247757	2026 2026 155815 180718	163104 1988 1988 193559	2189 2188 2188 2396 132906	2390 2390 2390 2164 2189 2189 2364
φωσι	7622	00055	9222	N N W K	υφνφο	νοφαν	25161	σοσοσοσο
BC056281 AK026270 AF254086	AC118907 AC128031 AC125565	BC063928 BC075120 AC099212 AC105889	CQ721057 AC128482 AC098231 AC106522 HSM808920	AC011221 AJ719366 AC113313 AC121282	AK127624 AC018774 AL596087	AC110672 AX714390 AX056681 AC137500	BC068226 AX305537 MMEWS BC083960 AC109802	CQ867364 AX411125 HS5WS BC072442 CR456490 BC011048 AK056309 CQ730352
BC056281 Danio rer BC056281 Danio rer AK026270 Homo sapi AF254086 Homo sapi	attus attus Rattu	Xenopus Xenopus Rattus Rattus	lattus lattus lattus lattus	19366	AK127624 Homo sapi AC018774 Homo sapi AC018774 Homo sapi AL596087 Human DNA	Sequent Homo s	BC068226 Mus muscu AX305537 Sequence X79233 M.musculus BC083960 Xenopus 1 AC109902 Canis fam	CQ867364 Sequence AX411125 Sequence X66899 H.saptens E BC072442 Homo sapi CR456490 Homo sapi BC011048 Homo sapi AK056309 Homo sapi

ALIGNMENTS

COMMENT The ex	JOURNAL Su	TITLE Di	KC KC		_	TITLE C1	2	<u>۲</u>	AUTHORS Ka	REFERENCE 1	o	ORGANISM sy	SOURCE 8y	KEYWORDS FI	VERSION BT	ACCESSION BT	引	DEFINITION SY	LOCUS BT	BT007796	
This CDS clone is a part of a collection of human full length expression clones generated by BD Biosciences Clontech and the Harvard Institute of Proteomics. Each CDS has been cloned in two	Submitted (13-MAY-2003) BD Biosciences Clontech, 1020 East Meadow Circle, Palo Alto, CA 94303, USA	Direct Submission	Kounding, M., Raphael, J., Moreira, D., Kelley, T., LaBaer, J., Lin, Y.,	(bases 1 to 1971)	Unpublished	Cloning of human full-length CDSs in BD Creator(TM) System Donor	Phelan, M. and Farmer, A.	Koundinya, M., Raphael, J., Moreira, D., Kelley, T., LaBaer, J., Lin, Y.,	Kalnine, N., Chen, X., Rolfs, A., Halleck, A., Hines, L., Eisenstein, S.,	(bases 1 to 1971)	other sequences; artificial sequences.	synthetic construct	synthetic construct	FLI_CDNA.	BT007796.1 GI:30584430	BT007796	rtial cds.	Synthetic construct Homo sapiens Ewing sarcoma breakpoint region 1	BT007796 1971 bp mRNA linear SYN 13-MAY-2003		

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
S
                              밁
                                                       Ś
                                                                                          밁
                                                                                                                ક
                                                                                                                                                 밁
                                                                                                                                                                              Ś
                                                                                                                                                                                                               片
                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                 US-10-791-017A-2 (1-656)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         No.:
                               301
                                                          101
                                                                                          241
                                                                                                                                                     181
   121
                                                                                                                                                                                                                 121
                                                                                                                      81
                                                                                                                                                                                   61
                                                                                                                                                                                                                                             41
                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                      21
                                                                                                                                                                                                                                                                                                                                      μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          forms: with and without stop-codon (to allow fusion with C-terminal tag). The CDS has been directionally cloned using BD In-Fusion(TM) cloning system between the SalI and HindlII sites of the pDNR-DUAL vector. Additional sequences in the clone: 'ACC' after SalI site and before 'ATG' to provide Kozak consensus sequence; 'GG' after last codon and before HindlII site to maintain reading frame. Clone distribution: http://bloinfo.clontech.com/orfclones.
                                                                                                                                                                                                                                                                                                                                                                   1
                                                                                                                                                                                                                                                                                                                                    MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
 GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln 140
                                               ThrThrAlaThrValThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                             ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                      TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                              TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                      TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA
                                                                                                                                                                                                                  TATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC
                                                                                                                                                                                                                                    TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                           TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                                                                                          ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LMEQMGGRRGGRGGPGKMDKGEHRQERRDRPYL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /product="Homo sapiens
/protein_id="AAP36468.1
/db_xref="GI:30584431"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="synthetic construct"
/mol_type="mmRNA"
/db xref="taxon:32630"
/clone="GH00297L1.0"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'clone_lib="BD Creator(TM) CDS Library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  trane]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note="Mutations: 1970:Stop->Leu"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        lab_host="DH5alpha T1 resistant"
note="Vector: pDNR-Dual"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              . >1971
                                                                                                                                                                                                                                                                                                                                                                                                                                5.55e-77
3633.00
100.00%
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                 x BT007796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  table=11
                                                                                                                                                                                                                                                                                                                                                                                                  (1-1971)
                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  s Ewing sarcoma breakpoint region .1"
                                                                                                                                                                                                                                                                                                                                                                                                                               1971
656
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3
6
7
                                                            120
                                                                                          300
                                                                                                                        100
                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                          40
                                                                                                                                                                                    80
                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           გ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                     Ś
                                                                                                        밁
                                                                                                                                   Ś
                                                                                                                                                                 밁
                                                                                                                                                                                              Ś
                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                          片
                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                          밁
                                             1381
                                                                                                                                                                                                                                 1201
                                                                                                                                                                                                                                                                                           1141
                                                                                                                                                                                                                                                                                                                                                      1081
                                                                                                                                                                    1261
                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                      441
                                                                                                                                                                                                                                                             401
                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                             341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                 481
                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                          PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                    AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                               ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                          AAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCCACCC
                                                                                                                           LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                      CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                       ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                 TACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCCA
                                                                                                                                                                                                                                                     TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                      AGTIGCAATTTATIGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTC
                                                                                                                                                                                                                                                                                                                                                                       SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCAGGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
```

720 260 780 280

320 960 240

200 600 220 660 420 160 480 180

1380

1440 500 1320

460

1260

340 1020 360 1080 1380 1140 1200

```
PUBMED
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 2
BC004817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                      Strauberg, L., Feingold, E.A., Grouse, L.H., Derge, J.G.,

Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,

Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,

Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.K.,

Distchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,

Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,

Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,

Abramson, R.D., Mullahy, S.J., Bossk, S.A., McEwan, P.J.,

McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,

Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,

Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,

Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,

Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,

Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,

Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,

Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,

Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.

Generation and initial analysis of more than 15,000 full-length

human and mouse cDNA sequences

Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BC004817
2182 bp mRNA linear PRI 29-JUN-2004
Homo sapiens Ewing sarcoma breakpoint region 1, transcript variant
EWS, mRNA (cDNA clone MGC:5432 IMAGE:3449145), complete cds.
     Direct Submission
Submitted (21-MAR-2001) National
                                                              Strausberg, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCCCTGGACCTTTGATGGAACAGATGGGAGGAGGAAGAAGAGGACGTGGAGGACCTGGA 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHigArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGAGGAAACGTCCAGCACCGAGCTGGA 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGT 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACTGGCAGTGTCCCAATCCGGGTTGTGGAAAACCAGAACTTCGCCTGGAGAACAGAGTGC 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases 1 to 2182)
                                                                                            (bases 1 to 2182)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens
     Institutes of Health, Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           560
                          S
                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
                                                                                      US-10-791-017A-2 (1-656) x BC004817
                                                                                                                                                                                                                                                                                            Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                             Diery
                                                                                                                                                                                                                                                                 score:
                                                                                                                                                                                                                                                                                                                       Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla 20
```

밁 ঠ 닭 ঠ 밁 ঠ S 밁 ঠ 밁 ş В ş В

밁

밁 श

SOURCE

TITLE

(1-2182)

```
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 3 Row: 1 Column: 6 This clone was selected for full length sequencing because it passed the following selection criteria: Hexamer frequency ORF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: amg@bcm.tmc.edu
Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Loulseged,
Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Baylor College of Medicine Human Genom Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 analysis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   passed the following selection criteria: Hexamer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A.N., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Center code: BCM-HGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /db_xref="MIM:133450"
/translation="MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY
/translation="MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTGAYDTTT
QQPTDVSYTQAQTTATYGQTAYATSYGQPPTGYTTPTAPQAYSQPVQGYGTGAYDTTT
ATVTTQASYAAQSAYGTQAYYAYAYGQQPAATTAPTRPQDGNKPTETSQPQSSTGGYNQ
PSLGYGQSNYSYPQVPGSYPMQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQNTYGQPS
SYGQQSSYGQQSPTSYPPQTGSYSQAPSQYSQQSSSYGQQSSFRQDHFSSMG
VYGQESGYGQQSSYGQQPTSYPPQTGSYSQAPSQYSQQSSGGGGGGGGGAGAGERGGFN
KFGGPMDEGDLDLGFPVDDFDBDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVXMXK
TGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEMFDGKDFQGSKLKVSLARKKPP
                                                                                                                                                                                                                                                                                       MNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGN
PSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGDRGRG
GPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGGPPGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /codon_start=1
/product="Swing Barcoma breakpoint region 1, isoform EWS"
/protein_id="AAH04817.1"
/db_xref="G1:13435963"
/db_xref="LocusID:2130"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .2182
                                                                                                                                                                                                                                                            LMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /tissue_type="Placenta,
/clone_lib="NIH_MGC_10"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene="EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      note="Vector:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      clone="MGC:5432 IMAGE:3449145"
   5.91e-77
3633.00
100.00%
100.00%
100.00%
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      pcmv-sport6"
                        Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        choriocarcinoma"
2182
656
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MD 20892-2590,
```

301 GlyArgGlyArgGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGly 320	### PACKCOCCCCACCCCACCCACCCACCCACCCACCCACCCAC	20 ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCT 79 21 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer 40
A36460 LOCUS A36460 LOCUS A36460 A36460 A36460 ACCESSION A36460 VERSION A36460. VERSION A36460. VERSION A36460. KEYWORDS SOURCE Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. REFERENCE AUTHORS AUTHORS AUTIAG, Delattre, O., Desmaze, C., Melot, T., Peter, M., Plougastel, B., Thomas, G. and Zucman, J. RITLE RECURRENT CHROMOSOMAL TRANSLOCATIONS ASSOCIATED WITH THE	401 TyrLeuAspLysGurbrolytysBrolysGlyAspAlaThrValSerTyrGluAspBroll 120 TACCTGGACAGGAAACAGGACAAGGCCCACAGGCCCACACGGTGCCCCCCCC	Qy 381 PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle 400

음 성

밁 ঠ 밁

S

유왕 ઠ S 유 왕

밁 ş á

밁

밁

중 유

Ś 밁 Ś

밁

음 성

음 성

밁 ঠ Ş 밁 S 밁 Ş

음 성 밁

REFERENCE AUTHORS	RESULT 3 A36460 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM	B 48	P \$	ь	\$	₽ Q	Db 1	γQ	당 QY 1	Db 1	ঠ	Db Q7		ş ş	_	Qy 1	Db 1	Ş	L	·	ος 1
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Ho 1 (bases 1 to 2371) Aurias, A., Delattre, O., Desmaze, C., Melot, T., Peter, M., Plougastel, B., Thomas, G. and Zucman, J.	A36460 A36460 Sequence 1 from Patent WO9323549. A36460 A36460.1 GI:2293778 Homo sapiens (human) Homo sapiens (human) ENkaryota: Metazoa: Chordata: Craniata: Vertebrata	641 LYBMECABDLYBGLYGLUNIBAIGGINGLUAIGAIGABDAIGFIOLYI 656 	21 FIDELOUS PERDUEUME CU UN SILIME CU YOU AND	20 GGTGGCCGGGGCATGGACCGAGGTGGCTTTCGTGGAGGAAGACGAGGTGGCCCTGGGGGGG	601 GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly 620	581 ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg 600	o GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGGAA	561 GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp 580	541 AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly 560	580 GACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGC 1639	521 AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys 540	501 GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly 520	-	1 GlvGlvProMetGlvAraMetGlvGlvAraGlvGlvAspAraGlvGlvPheProProAra 500	461 ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro 480	441 LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro 460	.280 CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTTCAAGGGAGCAAACTT 1339	421 ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu 440		01 TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro 4	381 PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle 400

	Db 625 ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACACCTATGGGCAACACCTATGGGCAACACCTATGGGCAACACCTATGGGCAACACCTATGGGCAACCAGCTATGGCAACACTATGGGCAACCAAC	Qy 181 MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro	Qy 161 ProserLeuGlyTyrGlyGlnSerAenTyrSerTyrProGlnValProGlySerTyrPro	Qy 141 AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln	Qy 121 GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln	Qy 101 ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr	Qy 81 ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr	Qy 61 TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro	Qy 41 TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr	Qy 21 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer	hraspTyrSe GGATTACAG	100.00% Indels: 6 Gaps: 6) x A36460 (1-2371)	Pred. No.: 6.22e-77 Length: 2371 Score: 3633.00 Matches: 656 Percent Similarity: 100.00% Conservative: 0 Best Local Similarity: 100.00% Mismatches: 0	n core	<pre>source 12371 /organism="Homo sapiens" /mol_type="unassigned DNA" /db xref="taxon:9606"</pre>	COMMENT Other publication FR 2691475 931126 Other publication JP 8500964T 960206. FEATURES Location/Qualifiers	JOURNAL Patent: WO 323549-A 1 25-NOV-1993; CENTRE NAT RECH SCIENT (FR)
	240	200	180	160	140	120	100 324	80	204	r 40	1a 20 	Oy ob	. Oy	oy oy	Qy Db		

641 LyssectAspLysclyGluHisArgGlnGluArgArgAspArgProTyr 656 1945 ANARTGGATHAAGGCCAGCCCCTCAGGAGGCCAGAGATCGGCCCTAC 1992 1945 ANARTGGATHAAGGCCAGCCAGCCAGCCCCTACCAGGAGCCCAGAGATCGGCCCTAC 1992 1945 ANARTGGATHAAGGCCAGCCCAGCCCATATCAGGATCTAGAGATCGGCCCTAC 1992 1945 ANARTGGATHAAGGCCAGCCCAGCCCATATCAGGATCTAGAGATCGGCCCTACAGAGCTATACTACTAGATCTATAGATCATAGATCAGACCTACCAGGCCTATCAGAGCCATACAGGCCTATCAGAGCCATATCAGACCAACCCAGCCCATATCAGACCTACCAGGCTATACAGACCTACCAGGCTATACAGACCACCCAGCCTATCAGAGCTATCAGACCTACCAGGCTATACAGACCTACCAGGCTATACAGACCTACCAGGCTATCAGACCAACCCAGCCCAACCCAGCCTATCAGACCAACCCAGCCCAACCAGCCAACACACAC	Oy 621 ProProGlyProLeumetGluGlnmetGlyGlyArgArgGlyGlyArgGlyGlyProGly 640
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Qy Qy
181 METCHIPPTOWALTHINALE PROPROSE TYPTPOSTOTH SETTY SEGRETHICH CONSTRUCTION CONTROLLED TO THE METCHIPPTOWALTHINALE PROPROSE TYPTPOSTOTH SETTY SEGRETHICH CONTROLLED TO THE METCHIPPTOWALTHINALE PROPROSE TYPTPOSTOTH SETTY SEGRETHINALE CONTROLLED TO THE METCHIPPTOWALTHINALE PROPROSE TYPTPOSTOTH SETTY SEGRETHINALE CONTROLLED TO THE METCHIPPTOWALTHINALE CONTROLLED TO THE M	445 GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG 504 161 ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro 180

ORIGIN LMEQMGGRRGGRGGPGKWDKGEHRQERRDRPY" Alignment Scores: 6.25e-77	GQPTDVSYTQAQTTATYGCTAYATSYGQPPGYTT-PTAPQAYSQPVQGYGTGAYDTTT ATVTTTQAS YAAQSAYGTQPAYATSYGQPPGYTT-PTAPQAYSQPVQGYGTGAYDTTT ATVTTTQAS YAAQSAYGTQPAYAAYGQQPAATAFTREQDGNKFTETSQPQSSTGGYNQ PSLGYGGSYSYAQQSSYPQVPGSYPMQPPVTAPPTRYPDGNSYSYQQNTYGQPS SYGQQSSYGQQSYPTSYPPQTGSYSQAPSQQSSSYGQQSSFRQDHPSSMG VYGQESGGFSGPGERGSBDNREMSGFBGFRGGRKGGRGGGRGGHGSAGSRGGFR VYGQESGGFSGPDLDLGPFVDPDEDSDNSAIYVGYGGRGGRGGGRGGHGSAGSRGGRG KPGGFNDFUFLYLDKETGKPKGDATVSYEDPFTAKAAVEWPDGKDFQGSKLKVSLARKKP MNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPGRGGRGGDRGGFPPRGBRGSRG PSGGMNGGRGGIMDRGGPGGPGGPGGPGGPGGPGGPGGPGFPGPRGSRG PSGGMNGGRGGIMDRGGTGGTGCMPKGGRGGDRGGFCAPKGDFGGPGGPGGPGF PSGGMNGGGGGGGGGGGFPPRGGRGGNGGFGGFGGPGFGGPGGPGGPGGPGGPGGPGGPGGPGGPGG	source 1. 2390 /organiss="Homo sapiens" /mol_type="unassigned NNA" /db_xref="taxon:9606" 44. 2014 /note="unnamed protein product" /codon_start=1 /protein_id="CAH33891.1" /db_xref="GI:51997590" /translation="MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY	REFERENCE 1 AUTHORS Obendorf, M. and Wolf, S. TITLE Modulation of the activity of nuclear receptors via EWS JOURNAL Patent: EP 1455190-A 1 08-8EP-2004; Schering Aktiengesellschaf (DE) FEATURES Location/Qualifiers	GI:51997589 ens (human) ens (hetazoa; Chordata; Craniata;	Type Chapty Structure (1)	1825 621 1885	Db 1705 GGTGATCGTGGCAGAGGTGGCCTGGTGGCATGCAAGAAGAGGTGGCCTCATGGAT 1764 Qy 581 ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg 600	541 AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProProProProProJly	Qy 521 AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys 540
Oy 301 GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGly320	CCACCCCAAACTGGATCCTACAGCCAAGCTCCCAAGCTCCCAAGCTCCAAGCTGGATCCTACAGCAGAGAGTTCATTCCGACAGGAGAGAGTTCATTCCGACAGGAGAGAGA	201 ThrSerTyraspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr 2	524 CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCC 181 MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro 181 MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro	Qy 141 AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln 160	Qy 101 ThrThrAlaThrValThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr 120	Qy 61 TyrelyGluThrAlaTyrAlaThrSerTyrelyGluThrOproThrGlyTyrThrThrPro 80 1	104 41 164	OS-10-791-017A-2 (1-656) X CU66756% (1-2390) 1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaGlnGlnGlyTyrSerAla 20	Local Similarity: 100.00% y Match: 100.00% 6

ঠ

```
RESULT 6
AX411125
LOCUS
DEFINITION
ACCESSION
VERSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                   片
                                                                                                                                                 ર્ક
                                                                                                                                                                   밁
                                                                                                                                                                                           S
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                   1904
                                                                                                                                                                           1844
                                                                                                                                                                                                                    1784
                                                                                                                                                                                                                                                            1724
                                                                                                                                                                                                                                                                                                   1664
                                                                                                                                                                                                                                                                                                                                            1604
                                                                                                                                                                                                                                                                                                                                                                                                                            1484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1064
                                                                                                                                                                                                                                                                                                                                                                                    1544
                                                                                            1964
                                                                                                              641
                                                                                                                                                       621
                                                                                                                                                                                               601
                                                                                                                                                                                                                                        581
                                                                                                                                                                                                                                                                                561
                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                               521
                                                                                                                                                                                                                                                                                                                                                                                                        501
                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         341
                   AX411125
Sequence 377
AX411125
AX411125.1
 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                       LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                          GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                        GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                     AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                 GlyProArgGlySerArgGlyAsnProSerGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                           AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                            GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGG
                                                                                                                                                                                                                     CGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGT
                                                                                                                                                                                                                                                                                                                                                                                     GGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCAGCCGAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                             GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGAGGGCAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTC
 sapiens
                                        3772
                     GI:21443830
 (human)
                                          from
                                        2390 bp |
Patent WO0229103
                                                 DNA
                                                   linear
                                                                                           2011
                                                                                                              656
                                                  PAT
                                                  14-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                    1963
                                                                                                                                                                            1903
                                                                                                                                                                                                                     1843
                                                                                                                                                                                                                                                             1783
                                                                                                                                                                                                                                                                                                    1723
                                                                                                                                                                                                                                                                                                                                            1663
                                                                                                                                                                                                                                                                                                                                                                                     1603
                                                                                                                                                                                                                                                                                                                                                                                                                             1543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1123
                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                580
                                                                                                                                                                                                                                                                                                                        560
                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                         520
                                                                                                                                                                                                                                                                                                                                                                                                                                                 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  380
                                                                                                                                                                                                620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
```

S

δ

```
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
             S
                                     닭
                                                           S
                                                                                     밁
                                                                                                     ঠ
                                                                                                                                밁
                                                                                                                                                  S
                                                                                                                                                                             片
                                                                                                                                                                                             8
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                   망
                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-791-017A-2 (1-656) x AX411125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
             221
                                          644
                                                                                                                                                                                                                                                                                         101
                                                                                                                                                                                                                                                                                                                                                                                                                                                  104
                                                               201
                                                                                       584
                                                                                                                                   524
                                                                                                                                                                             464
                                                                                                                                                                                                  141
                                                                                                                                                                                                                         404
                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                     344
                                                                                                                                                                                                                                                                                                                284
                                                                                                                                                                                                                                                                                                                                                          224
                                                                                                                                                                                                                                                                                                                                                                                                      164
704
                                                                                                            181
                                                                                                                                                       161
                                                                                                                                                                                                                                                                                                                                    81
                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                          41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alvares,C., Horne,D., Peres-da-Silva,S. and
Gene expression profiles in liver cancer
Patent: WO 0229103-A 3772 11-APR-2002;
GENE LOGIC INC (US)
                                                                                     MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                         MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
GGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTAC
          GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                              GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG
                                                                                                                                                                                         AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                                                                                                         CAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCCACCTGCACCTACAAGACCGCAG
                                                                                                                                                                                                                                   GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                                                     ACCACTGCTACAGTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACT
                                                                                                                                                                                                                                                                                 ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                                                                                                                                                                                                                ACTIGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC
                                                                                                                                                                                                                                                                                                                            ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                                                                                                                                           TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA
                                                                                                                                                                                                                                                                                                                                                                       TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
1. .2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                note="EMBL/GenBank Accession
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6.25e-77
3633.00
100.00%
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (1-2390)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2390
656
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                X66899"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Vockley, J.G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Euteleostomi;
                                                                                                                                   583
                                                                                                                                                         180
                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                343
                                                                                                                                                                                                                                                                                                                                      100
                                                                                                                                                                                                                                                                                                                                                            283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        40
                    240
                                          703
                                                                 220
                                                                                       643
                                                                                                             200
                                                                                                                                                                               523
                                                                                                                                                                                                   160
                                                                                                                                                                                                                         463
                                                                                                                                                                                                                                               140
                                                                                                                                                                                                                                                                    403
                                                                                                                                                                                                                                                                                                                                                                                 90
                                                                                                                                                                                                                                                                                                                                                                                                       223
                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                  163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20
763
```

```
र्
                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                            δ
                                                                                                                                                        밁
                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                ş
                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
 밁
                     ક
                                                    밁
                                                                      ð
                                                                                                    밁
                                                                                                                                                                             र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          १
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
  1784
                                                    1724
                                                                                                        1664
                                                                                                                                                        1604
                                                                                                                                                                                                           1544
                                                                                                                                                                                                                                                              1484
                                                                                                                                                                                                                                                                                                                1424
                                                                                                                                                                                                                                                                                                                                                                  1364
                                                                                                                                                                                                                                                                                                                                                                                                                      1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1004
                           581
                                                                             561
                                                                                                                               541
                                                                                                                                                                                 521
                                                                                                                                                                                                                                   501
                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                        461
                                                                                                                                                                                                                                                                                                                                                                                            441
                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                 Ly8ValSerLeuAlaArgLy8Ly8ProProMetA8nSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TyrGlyGlnGlnSerSerPheArgGlnAapHisProSerSerMetGlyValTyrGlyGln
                                                                                                                       AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                        GACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGC
                                                                                                                                                                          AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                        GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                           GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                              ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                  AAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                    ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TACCTGGACAAGGAAACAGGAAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheABnLyaProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGTCTGGAGGATTTTCCGGACCAGGAGAAACCGGAGCATGAGTGGCCCTGATAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
CGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGT 1843
                                                                                                        AACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGT
                                                                                                                                                                                                            GGACCCCGGGG
                                                                                                                                                                                                                                                             GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGTAGAGGAGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                                                                               CGTGAGGGCAGGCATGCCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                      CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCAGGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGA
                                                    GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGAT
                                                                yAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                      1723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . 1003
                                                    1783
                                                                                                                                                        1663
                                                                                                                                                                                                           1603
                                                                                                                                                                                                                                                             1543
                                                                                                                                                                                                                                                                                                               1483
                                                                                                                                                                                                                                                                                                                                                                  1423
                                                                                                                                                                                                                                                                                                                                                                                                                      1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1063
                           600
                                                                           580
                                                                                                                               560
                                                                                                                                                                                 540
                                                                                                                                                                                                                                    520
                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                            460
                                                                                                                                                                                                                                                                                                                                                                                                                                              440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            823
                                                                                                                                                                                                                                                                                     500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
HSEWS
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                         CDS
                                                                                                                                                                                                                                                                                                 gene
            misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and
```

```
H.sapiens
X66899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (26-MAY-1992) O. Delattre, Lab. de Genet. des Tumeurs. Inst. Curie, 26 rue D'Ulm, 75231 Paris Cedex, FRANCE On Sep 23, 1994 this sequence version replaced gi:31279.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               translocation in human tumours
Nature 359 (6391), 162-165 (1992)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Delattre,O., Zucman,J., Plougastel,B., Desmaze,C., Melot,T.,
Peter,M., Kovar,H., Joubert,I., de Jong,P., Rouleau,G., Aurias,A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Delattre, O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RNA binding protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               X66899.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAGGACCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (bases 1 to 2371)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Thomas, G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 fusion with an ETS DNA-binding
                                                                                                                                                                                                                                                              /gene="BWS"
/codon_start=1
/product="RNA binding_protein"
/protein_id="CAA47350.1"
/db_xref="GOA:001844"
/db_xref="UniProt/Swi8s-Prot:Q01844"
                                                                                  GPGGMRGGRGGLMDRGGPGGMPRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGGPPGP
LMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"
                                                                                                                                                                                                                                                                                                                                                                                                                         /tissue_type="brain"
/clone_Tib="cDNA, Stratagene
/dev_stage="foetus"
1. .2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GI:547565
/gene="EWS"
/bound_moiety="RNA"
                                                                                                                                                                                                                                                                                                                                                                                                       /gene="EWS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EWS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /chromosome="22q12"
/clone="BF1AC5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .2390
                                                                                                                                                                                                                                                                                                                                                                                          .2014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   caused
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 γď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRI 28-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            640
```

```
Pred. No.:
Score:
Score:
Percent Similarity:
Best Local Similarity:
Ouery Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-791-017A-2 (1-656) x HSEWS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     polyA_site
                                                                           704
                                                                                                                            644
                                                                                                                                                  201
                                                                                                                                                                           584
                                                                                                                                                                                                                           524
                                                                                                                                                                                                                                                                                                                                                                          344
   261
                          764
                                                 241
                                                                                                   221
                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                  161
                                                                                                                                                                                                                                                                           464
                                                                                                                                                                                                                                                                                                 141
                                                                                                                                                                                                                                                                                                                           404
                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                 101
                                                                                                                                                                                                                                                                                                                                                                                                                          284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         164
                                                                                                                                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                                                       AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
  TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                         ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                          GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                           MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                         GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG
                                                                                                                                                                                                                                                                                                                                        GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                                                                                                                                                                        ThrThrAlaThrValThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                        ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                            ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                          ACCACTGCTACAGTCACCACCACCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                          ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TATEGAACCTATEGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC
                                                                                                                                                                             ATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCTACCCAGCTATTCCTCTACACAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2162...2167
/gene="EWS"
/evidence=experimental
2350...2355
/gene="EWS"
/evidence=experimental
2371
/gene="EWS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6.25e-77
3633.00
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (1-2390)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
0
0
0
0
   280
                                                                                                                                                                          643
                                                                                                                                                                                                                           583
                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                          523
                                                                                                                                                                                                                                                                                                 160
                                                                                                                                                                                                                                                                                                                                                   140
                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                          343
                                                                                                                                                                                                                                                                                                                                                                                                                                                  100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          283
                          823
                                                 260
                                                                           763
                                                                                                  240
                                                                                                                           703
                                                                                                                                                    220
                                                                                                                                                                                                  200
                                                                                                                                                                                                                                                                                                                           463
                                                                                                                                                                                                                                                                                                                                                                          403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
            á
                                   片
                                                          S
                                                                                     밁
                                                                                                         5
                                                                                                                                 밁
                                                                                                                                                         5
                                                                                                                                                                                       밁
                                                                                                                                                                                                      5
                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                      1484
                                                                                                                                                                                        1664
                                                                                                                                                                                                                                                                                                                                                                                      1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1004
                                                                                                                                      1724
                                                                                                                                                                                                                                        1604
                                                                                                                                                                                                                                                                                       1544
                                                                                                                                                                                                                                                                                                                                                                                                                                       1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                             501
                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                              461
                                                                                                                                                                                                                                                                                                                                                                                                                                                              441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    824
               621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                   GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ProProGlyProLeumetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                       GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGG
                                                     GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                        CGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGT
                                                                                                      ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                       GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAGGTGGCCTCATGGAT
                                                                                                                                                       GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                     AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                                                   AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                       GGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGA
                                                                                                                                                                                                                                                                                                                                        GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                       CGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                   ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                   LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGACAAC
                                                                                        1843
                                                                                                                                                                                                                                                                                       1603
                                                                                                                                                                                                                                                                                                                                        1543
                                                                                                                                                                                                                                                                                                                                                                                                                                        1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1003
                                         1903
                                                                                                                                                              580
                                                                                                                                                                                        1723
                                                                                                                                                                                                               560
                                                                                                                                                                                                                                        1663
                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                              520
                                                                                                                                                                                                                                                                                                                                                               500
                                                                                                                                                                                                                                                                                                                                                                                       1483
                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                               460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
```

δ

밁 ş 밁 ঠ 밁 Ś 밁 á 밁 Ś

Ś

S 문 S

밁 S 밁 5 밁 S 밁 5 밁 S 밁

문

620

640

RESULT 8 BC072442

음 성

밁

LOCUS DEFINITION

KEYWORDS SOURCE

ORGANISM

REFERENCE

AUTHORS

ACCESSION VERSION

```
Strausberg, L., Felingold, B.A., Grouse, L.H., Derge, J.G.,
Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buctow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Villalon, D.K., Muzny, D.M., Sodergren, B.J., Lu, X., Gibbs, R.A.,
Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,
Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,
Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, B.D.,
Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,
Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.
Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1904 CCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGA 1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               641 LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656
                                                                                                                                                  Web site: nisc_mgc@nhgri.nih.gov/
Contact: nisc_mgc@nhgri.nih.gov
Akhter,N. Ayele,K., Beckstrom-Sternberg,S.M., Benjamin,B.,
Blakesley,R.W., Beuffard,G.G., Breen,K., Brinkley,C., Brooks,S.,
Blakesley,R.W., Bouffard,G.G., Breen,X., Gupta,J., Haghighi,P.,
Hansen,N., Ho,S.-L., Karlins,B., Kwong,P., Laric,P., Legaspi,R.,
Maduro,Q.L., Masiello,C., Maskeri,B., Mastrian,S.D.,McCloskey,J.C.,
McDowell,J., Pearson,R., Stantripop,S., Thomas,P.J., Touchman,J.W.,
Tsurgeon,C., Vogt,J.L., Walker,M.A., Wetherby,K.D., Wiggins,L.,
Young,A., Zhang,L.-H. and Green,B.D.
Clone distribution: MGC clone distribution information can be foun through the I.M.A.G.E. Consortium/LLNI at: http://image.llnl.gov Series: IRAK Plate: 174 Row: g Column: 18
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 4885224.
                                                                                                                                                                                                                                                                                                                                                                                                                          cDNA Library Preparation: Life Technologies, Inc. (CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: National Institutes of Health Intramural Sequencing Center (NISC), Saithersburg, Maryland;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC/DCTD/DTP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (01-JUN-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BC072442 2164 bp mRNA linear PRI 30-JU Homo sapiens Ewing sarcoma breakpoint region 1, transcript va Homo sapiens Ewing sarcoma breakpoint region 1, transcript va Homo sapiens Ewing sarcoma breakpoint region 1, complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BC072442
BC072442.1 GI:48734726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Strausberg,R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 2011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 2164)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases 1 to 2164)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               transcript variant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRI 30-JUN-2004
                                                                                                              found
                                                                                     밁
                                                                                                                                    S
                                                                                                                                                                                           밁
                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       გ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-791-017A-2 (1-656) x BC072442 (1-2164)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SdD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                   121
                                                                                        307
                                                                                                                                                                                                                                                                                                    187
                                                                                                                                                                                                                                                                                                                                                                                                          127
                                                                                                                                                                                                                                             81
                                                                                                                                                                                                                                                                                                                                                     13
                                                                                                                                                                                                                                                                                                                                                                                                                                                           41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
     GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                         ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                                        TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCT
                                                                                                                                       ThrThrAlaThrValThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                                                                                           ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC
                                                                                                                                                                                                                                                                                                    TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA
                                                                                                                                                                                                                                                                                                                                  TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                          TATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /product="Ewing sarcoma bz
/protein id="AAH72442.1"
/db xref="GI:48734727"
/db xref="LocusID:2130"
/db xref="MIM:133450"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gene="EWSR1"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="synonym: EWS"
/db_xref="LocusID:2130"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone="MGC:87992 IMAGE:6047805"
/tissue_type="Skin, melanotic melanoma."
/clone_Tib="NHH_MGC_72"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gene="EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note="Vector:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.28e-76
3618.50
99.85%
99.85%
99.86%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 xref="MIM:133450"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     breakpoint region 1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        isoform
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EWS
                                                                                                                                         120
                                                                                                                                                                                                                                                                                                    246
                                   140
                                                                                        366
                                                                                                                                                                                           306
                                                                                                                                                                                                                                               100
                                                                                                                                                                                                                                                                                                                                                   ġ.
                                                                                                                                                                                                                                                                                                                                                                                                          186
                                                                                                                                                                                                                                                                                                                                                                                                                                                           6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        66
```

PUBMED REFERENCE AUTHORS TITLE JOURNAL

TITLE JOURNAL

COMMENT

REMARK

```
1324
                                                                                                                                                                                                                                                                       1144
                                                                                                                                                                                                                                                                                                                            1084
                                                                                                                                                              1264
                                                                                                                                                                                                                                                                                                                                                                                  1024
                                                   1384
                                                                                                                                                                                                                   1204
                                                                                                                                 441
                                                                                                                                                                                        421
                                                                                                                                                                                                                                            401
                                                                                                                                                                                                                                                                                                 381
                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                            341
                                                                                                                                                                                                                                                                                                                                                                                                                                       967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          547
                        481
                                                                              461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                      LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                               SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
               GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                               ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                     TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                         TTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATC
                                                                                                                                                                                                                                                                                         PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                    GATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                     AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLy8ProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCCACCTGCACCTACAAGACCGCAG
GGGGGACCCATGGGTCGCATGGGAGGCCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA
                                                                    ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                   TACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                                                                                              AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCAGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGTCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATG
                                                                                                                                                                                                                   1263
                                                                                                                                                                                                                                                                                                                            1143
                                                                                                                                                                                                                                                                                                                                                                                    1083
                                                                                                                                                                                                                                                                                                                                                                                                                                       1023
                                                   1443
                                                                              480
                                                                                                         1383
                                                                                                                                   460
                                                                                                                                                              1323
                                                                                                                                                                                        440
                                                                                                                                                                                                                                                                         1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                160
1503
                        500
                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                   400
                                                                                                                                                                                                                                                                                                                                                         380
                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 9
CR456490
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 닭
                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                              gene
                                                    gg
                                                                                                                                                                           Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         641
```

밁 S 밁 र् 유 δ ద S 밁 ક 밁 S 밁 S 밁 ঠ 밁 δ 밁 ક 밁 δ 밁 δ 밁 ঠ 문 ક 밁 S 밁 Ś 밁 S 밁 ঠ 밁

```
Submitted (24-MAY-2004) Sanger Institute, Hinxton, Cambridgeshire, CB10 1SA, UK. E-mail enquiries: c22g@sanger.ac.uk Manuscript Sanger Institute name: pGEM.EWSR1 Homo sapiens cDNA sequence. This sequence was generated as part of The Wellcome Trust Sanger Institute program to isolate cDNA clones representing the full length open reading frame of well annotated protein coding genes on human chromosome 22. For more information see http://www.sanger.ac.uk/HGP/Chr22/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; E

Mammalla; Eutheria; Primates; Catarrhini; Hominidae;

1 (bases 1 to 2189)

Collins, J.E., Wright, C.L., Edwards, C.A., Davis, M.P.,

Cole, C.G., Goward, M.E., Aguado, B., Mallya, M., Mokrab,

Huckle, E.J., Beare, D.M. and Dunham, I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CR456490.1 GI:47678510 CDNA; chromosome 22; ORF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens EWSR1 full (cDNA clone C22ORF:pGEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CR456490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CR456490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGTGGTGGTCCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens (human)
                                                                                                 /gene="EWSR1"
34. .2001
/codon_start=1
/proteIn_id="CAG30376.1"
/db_xref="GI:47678511"
                                                                                                                                                                 /lab_
                                                                         /gene="EWSR1"
                                                                                                                                                                                                         /db_xref="taxon:9606"
/chromosome="22"
                                                                                                                                                                                                                                                                            organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                   1. .2189
                                                                                                                                                                                      clone="pGEM.EWSR1"
                                                                                                                                            .2189 JM109"
                                                                                                                                                                                                                                                           type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2189 bp
l length c
M.EWSR1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    open
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA 1
n reading
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
g frame
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRI 25-MAY-2004
(ORF) cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Buteleostomi;
; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Grinham,
                                                                                                                                                                                                                                                                                                                                                                                                                        clones
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ç,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          À
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          520
```

S S Alignment S Pred. No.: S 문 ş 밁 밁 Ş 문 밁 8 밁 Ś 밁 片 ঠ 밁 S 밁 Ś 유 Ş Percent Similarity:
Best Local Similarity:
Query Match:
DB: S 밁 S US-10-791-017A-2 (1-656) x CR456490 694 221 634 201 574 181 514 161 454 141 394 121 334 101 274 214 154 241 81 61 41 94 21 34 GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro TACACCGCCCAGCCCAACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCCAGGTACCTGGGAGCTACCCC ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGGTTACAACCAG AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC 1.29e-76 3618.50 99.85% 99.85% 99.60% (1-2189)Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps: 693 220 573 160 453 140 393 120 333 100 753 633 200 180 513 273 80 213 60 153 40 93 , S 밁 S 밁 S 片 5 밁 S 밁 S 밁 á 밁 S 밁 S 5 S 밁 8 5 밁 밁 Ś 밁 S 밁 8 밁 ঠ 밁 S 밁 δ 밁 1711 1591 1531 1471 1411 1351 1291 1231 1171 1051 561 541 501 481 461 421 401 381 321 934 301 281 754 GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly| ASPTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGAT GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp AACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGT AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly GACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGAACGTCCAGCACCGAGCTGGA GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClgGAGGGCCAGGAGGTCCTCGTGGAGGTCCAGGAGGCCCAGGAGGTCCT CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu TACCTGGACAAGGAAACAGGAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGACCCA TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro TTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATC PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTC SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe GATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAAC AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln 1770 1710 1530 480 1290 1170 1830 600 1650 1590 1470 1410 460 1350 1230 1110 1050 540 520 440 420 400 360 320 300 993 933 873 813

```
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
BC011048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pocas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G.,

Klausner, R.D., Collins, P.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,

Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,

Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,

Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,

Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,

Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,

Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,

Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,

Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,

McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,

McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,

Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.M.,

Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,

Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,

Sanchez, A., Whiting, M., Madan, A., Rodrigues, S.,

Sanchez, A., Whiting, M., Madan, A., Rodrigues, S.,

Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,

Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,

Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.

Generation and initial analysis of more than 15,000 full-length

human and mouse cDNA sequences

Proc. Matl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1831 GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGG 1890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      621
                                                                                                                                                                                                                                                                                                                                                                                                                                         USA
NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-remail.nih.gov
Tissue Procurement: Lou Staudt
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LINI)
DNA Sequencing by: Baylor College of Medicine Human Genome
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 12 Row: p Column: 1 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 4885224. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (25-JUL-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BC011048 linear PRI 29-JU BC011048 linear PRI 29-JU BC011048 EWING SAPIENS EWING SAPCOMA DEAKDOINT REGION 1, transcript va EWS, mRNA (cDNA clone MGC:16900 IMAGE:4340116), complete cds.
                                                                                                                                                                                                                                            Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Loulseged,
Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati,
A.N., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                              Sequencing Center
Center code: BCM-HGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Strausberg,R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BC011048.1 GI:15029674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCCCTGGACCTTTGATGGAACAGATGGGAGGAGGAAGAAGAAGGAGGACGTGGAGGACCTGGA 1950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 2364)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 2364)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               transcript variant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRI 29-JUN-2004
```

```
gene
                                                                                                                                                                                                                                                                                                                                                                                                                              83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                  SGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGDRGRGG
PGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGGPPGFI
                                                                                      VYGQESGGFSGPGENRSMSGPDNRGRGRGGFDRGGMSRGGRGGRGGMGAGERGGFNK
PGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRT
GQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPM
MEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"
                                                                 NSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGNP
                                                                                                                                                                                                                                                                                                            /codon_start=1
/product="Ewing sarcoma l
/protein_id="AAH11048.1"
/db_xref="GI:15029675"
                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="synonym: EWS"
/db_xref="LocusID:2130"
/db_xref="MIM:133450"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone="MGC:16900 IMAGE:4340116"
/fissue type="Lymph, lymphoma"
/clone Iib="NIH MGC_85"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                  /db_xref="LocusID:2130"
/db_xref="MIM:133450"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene="EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                         gene="EWSR1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   note="Vector:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                             sarcoma breakpoint region 1,
                                                                                                                                                                                                                                                                                                                                                               isoform EWS"
```

ORIGIN

S & S	B 6	B 8	B 8	P &	문 성	us.	Ali Pre Sco Per DB
101 328	81 268	61 208	41 148	21 88	28	US-10-791-017A-2 (1-656) x BC01	Alignment Scores: 1.35e-76 Pred. No.: 3618.50 Score: 3618.50 Percent Similarity: 99.85% Best Local Similarity: 99.85% Query Match: 99.60% DB: 9
ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr 	ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr 	TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro 	TyrGlyThrTyrGlyGlnProThraspValSerTyrThrGlnalaGlnThrThralaThr 	TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer 	MetalaSerThrAspTyrSerThrTyrSerGlnAlaAlaGlnGlnGlnGlyTyrSerAla 	BC011048 (1-2364)	Length: Matches: Conservative: Mismatches: Indels: Gaps:
AlaGlnSerAlaTyrGlyThr 	GlyThrGlyAlaTyrAspThr 	ProThrGlyTyrThrThrPro	GlnAlaGlnThrThrAlaThr CAGGCTCAGACCACTGCAACC	GlnAlaTyrGlyGlnGlnSer caggcaTaTgggcaacaaagc	AlaGlnGlnGlyTyrSerAla GCGCAGCAGGGCTACAGTGCT		2364 655 0 1

60 147 40

닭

388 CAGCCTGCTTATCCAGCCTATGGGCAGCAGCAGCAGCACCTACAAGACCGCAG

447 140 387 120 327

100

267 80 207

_		500 1524	481 GlyGlyPrometGlyArgmetGlyGlyArgGlyGlyAsgArgGlyGlyPheProProArg
		480 1464	461 ArgGluGlyArgGlyMetDroProLeuArgGlyGlyProGlyGlyProGlyGlyPro
_		460 1404	441 LygValSerLeuAlaArgLygLygProProMetAgnSerMetArgGlyGlyLeuProPro
	•	440 1344	421 ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
		420 1284	401 Tyrleuasplysgluthrglylysbrolysglyaspalathrvalsertyrgluasppro
		400 1224	381 PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
		380 1164	361 SerAlaileTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
		360 1104	341 AspGluGlyProAspLeuAspLeuGlyProProVslAspProAspGluAspSerAspAsn
		340 1044	321 ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAenLyBProGlyGlyProMet
		320 987	301 GlyargGlyargGlyGlyFheaspargGlyGlyMetSerargGlyGlyargGlyGlyGlyGly
		300 927	281 GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
		280 867	261 TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
		260 807	241 ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
		240	221 GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnBroProThrSerTyr
		220	01 ThrserTyrAspGlnSerSerTyrSe
		200	181 MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
		180	161 ProSerLeuGlYTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
		160	141 AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln

```
밁
                       Ś
                                                     맑
                                                                              S
                                                                                                             밁
                                                                                                                                 S
                                                                                                                                                                  밁
                                                                                                                                                                                        र्ठ
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                     뭉
                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                              1825
                                                                                                                                                                                                                          1705
                                                                                                                                                                                                                                                                                 1645
                                                                                                                                                                                                                                                                                                                                        1585
1945 AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                              1525
                          641
                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                     561
              LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                     CCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAAGGACCTGGA
                                                                     ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                             GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                  ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                        GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAAGAGGTGGCCTCATGGAT
                                                                                                                                                                                                                                       GlyAspArgGlyArgGlyFroGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                 AACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGGCCCCGGGGT
                                                                                                                                                                                                                                                                                              AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProProPheProProPly
                                                                                                                                                                                                                                                                                                                                     GACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGC 1644
                                                                                                                                                                                                                                                                                                                                                     AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                          GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGG
                        656
                                                                                                                                                                                                                                                                                                                                                                540
                                                     1944
                                                                                                           1884
                                                                                                                                                                  1824
                                                                                                                                                                                                                          1764
                                                                                                                                                                                                                                                                                 1704
                                                                                                                                                                                                                                                                                                          560
                                                                                                                                                                                                                                                                                                                                                                                             1584
                                                                                                                                                                                                                                                                                                                                                                                                                        520
                                                                                640
                                                                                                                                       620
                                                                                                                                                                                                                                                   580
                                                                                                                                                                                              600
```

SOURCE ORGANISM RESULT 11 AK056309 LOCUS VERSION KEYWORDS ACCESSION DEFINITION

REFERENCE AUTHORS 2189 bp Homo sapiens cDNA FLJ31747 fis, to RNA-BINDING PROTEIN EWS.
AK056309 AK056309.1 GI:16551673 oligo capping; fis (full insert sequence). Homo sapiens (human) Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. Homo sapiens

mRNA linear PRI 30-JAN-2004 clone NT2RI2007377, highly similar

Ota, T., Suzuki, Y., Mishikawa, T., Otsuki, T., Sugiyama, T., Irie, R., Wakamatsu, A., Hayashi, K., Sato, H., Nagai, K., Kimura, K., Makita, H., Sekine, M., Obayashi, M., Nishi, T., Shibahara, T., Tanaka, T., Ishii, S., Yamamoto, J., Saito, K., Kawai, Y., Isono, Y., Nakamura, Y., Ishii, S., Yamamoto, J., Saito, K., Kawai, Y., Isono, Y., Nakamura, Y., Nagahari, K., Murakami, K., Yasuda, T., Iwayanagi, T., Wagatsuma, M., Shiratori, A., Sudo, H., Hosoiri, T., Kaku, Y., Kodaira, H., Kondo, H., Sugawara, M., Takahashi, M., Kanda, K., Yokoi, T., Furnya, T., Kikawa, E., Omura, Y., Abe, K., Kamihara, K., Katsuta, M., Sato, K., Tanikawa, M., Yamazaki, M., Ninomiya, K., Ishibashi, T., Yamashita, H., Murakawa, K., Pujimori, K., Tanai, H., Kimata, M., Watanabe, M., Hiraoka, S., Chiba, Y., Ishida, S., Ono, Y., Takiguchi, S., Watanabe, S., Yosida, M., Hotuta, T., Kusano, J., Kanehori, K., Takahashi, Pujii, A., Hara, R., Tanase, T., Nomura, Y., Togiya, S., Komai, F., Hara, R., Takeuchi, K., Arita, M., Imose, N., Musashino, K., Yuuki, H., Oshima, A., Sasaki, N., Aotsuka, S., Yoshikawa, Y., Metunawa, H., Ichihara, T., Shinata, N., Sano, S., Moniyana, H., Satoh, N., Takami, S., Terashima, Y., Suzuki, O., Nakagawa, S., Senoh, A., Mizoguchi, H., Kawakami, S., Fukuzumi, Y., Fujimori, Y., Komiyama, M., Satoh, A., Hirao, M., Ohmori, Y., Komyaha, M., Matanabe, K., Kimagai, A., Itakura, S., Fukuzumi, Y., Fujimori, Y., Komiyama, M., Tashima, S., Fujiwara, T., Ono, T., Yamada, K., Fujii, Y., Ozaki, K., Hirao, M., Ohmori, Y., Kombata, A., Hikiji, T., Kobatake, N., Nakajawa, M., Saasaki, M., Togashi, T., Nomura, N., Kikuchi, H., Masuho, Y., Yamashita, R., Nagano, J., Kikuchi, H., Masuho, Y., Yamashita, R., Nagase, T., Nomura, N., Kikuchi, H., Masuho, Y., Yamashita, R.,

S

밁 ફ 밁 Ş 밁 ঠ

밁 ঠ 밁

S 밁 δ

문 ঠ 밁

Ş

Ş 밁

밁 S 유 ঠ 밁 ঠ 밁 र् 유 Ş 문 S 밁 र् 밁 S

```
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
                                                                                  Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
US-10-791-017A-2 (1-656) x AK056309 (1-2189)
                                                                                                                                                                                                                                                                                                              Pred. No.:
                                                                                                                                                                                                                                                                                                                                                       Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                       Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3 (bases 1 to 2189)
5 (basei, T., Oteuki, T. and Sugiyama, T.
5 (bibasision)
6 (bibasision)
7 (bibasision)
8 (bibasision)
9 (b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ishibashi, T., Kanehori, K., Yosida, M., Watanabe, S., Ishida, S., Ono, Y., Hotuta, T., Hiraoka, S., Murakawa, K., Takiguchi, S., Kusano, J., Watanabe, M., Fujimori, K., Tanai, H., Ishida, M., Yamashita, H., Chiba, Y., Sugiyama, T., Irie, R., Otsuki, T., Sato, H., Wakamatsu, A., Ishila, S., Yamanoto, J., Isono, Y., Kawai-Hio, Y., Saito, K., Nishikawa, T., Kimura, K., Mateuo, K., Nakamura, Y., Sekine, M., Kikuchi, H., Kanda, K., Wagatsuma, M., Takahashi-Fujii, A., Sugihari, K., Maspuh, Y., Nagai, K., Suzuki, Y., Sugano, S., Nagahari, K., Masuho, Y., Nagai, K. and Isogai, T. NEDO human CDNA sequencing project Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nakai,K., Yada,T., Nakamura,Y., Ohara,O., Isogai,T. and Sugano,S. Complete sequencing and characterization of 21,243 full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genet. 36 (1), 40-45 (2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDNAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /proteIn_id="Bab71145.1"
/db_xref="G1":16551674"
/db_xref="G1":16551674"
/db_xref="G1":16551674"
/translation="MastDystysoaahaggysaytagptogyagty
/translation="MastDystysoaahaggysaytagptogyagty
GQFTUNGYTQACYTATYGQTAYATSYGQPPTWEGTSTGYTTPTAPQAYSQPVQGYGTG
AYDTTTATVTTTQASYAAQSAYGTQPAYPAYFAYGQQPAATAPTRPQDGNKPTETSQPQSS
TGGYNQPSLGYGQSNYSYPQVPGSYPMQPVTAPPSYPPTSYSSTQPTSYDQSSYSQQN
TGGYRQPSGYGQQSSYGQDPTSYPMGPTSYSQAPSQYSQQSSSYGQQSSFQQD
TYGQPSSYGQQSSYGQOSTGQPPTSYPGTSYSQAPSQYSQQSSSYGQOSSFQD
TYGQPSSYGQOSSGGGSGEGEGEBEBGSTDNGGRGGGFDRGGWSRGGRGGGGWGAGE
HPSSMGYYGDESGGFSGPGENKSMSGFDNTGSYSDPTAKAAVEWFDGKDFQGSKLKVSLA
KUNKRYGQPMIHIYLDKETSKPKGDATYSYEDPFTAKAAVEWFDGKDFQGSKLKVSLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /cell_type="teratocarcinoma"
/clone lib="NT2RI2"
/clone lib="NT2RI2"
/note="cloning vector: pME18SFL3-mRNA from NT2 neuronal precursor cells treated 2-weeks mitotic inhibitor after 5-weeks retinoic acid (RA) induction.-majorly NT2 neuron"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPRGPR
GSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPPPGG
DRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="NT2RI2007377"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cell line="NT2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          note="unnamed protein product"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 codon_start=1
                                                                                           2.58e-76
3605.50
98.94%
98.94%
99.24%
                                                                             Conservative: Mismatches: Indels: Gaps:
                                                                                                                                                                                                                                                                Length:
Matches:
                                                                                  2189
655
0
7
2
```

Ś

1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla

·		·	-,					- *			·		··			<u>-</u> -	·	
Ş	da Vy	Qy Db	Qy dd	D 64	p Q	g Qy	Db Oy	D Qy	D Q	D Qy	D 8	D Qy	g 87	D Qy	Db Qy	Qγ Db	Qγ db	Db .
355 AspGluAspSerAspAsnSerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeu 374	335 LygProGlyGlyProMetAspGluGlyProAspLeuAspLeuGlyProProValAspPro 354	315 GlyGlyArgGlyGlyArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsn 334 	295 SerGlyProAspAsnArgGlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArg 314 	275 MetGlyValTyrGlyGlnGluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMet 294	255 SerGlnGlnSerSerSerTyrGlyGlnGlnSerSerPheArgGlnAapHisProSerSer 274	235 GlnProProThrSerTyrProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyr 254	215 GlyGlnProSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGln 234 	195 TyrserSerThrGlnProThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyr 214	175 ValProGlySerTyrProMetGlnProValThrAlaProProSerTyrProProThrSer 194 	155 ThrGlyGlyTyrAsnGlnProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGln 174 	135 AlaProThrArgProGlnAspGlyAsnLysProThrGluThrSerGlnProGlnSerSer 154	115 GlnSerAlaTyrGlyThrGlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThr 134 	95 ThrGlyAlaTyrAspThrThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAla 114 	75 ThrGlyTyrThrThrProThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGly 94	61 TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProPro	41 TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr 60	21 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer 40	

```
RESULT 12
CQ730352
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                             유
                                                                                                                                          멍
                                                                                                                                                             ঠ 🖁 ঠ
                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                      रु है रु
                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                            중 유
                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                      ş
                                                                                                                                                                                                                                                                                                                                                                                                                           र्
                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                     ORGANISM
                                                                                                                                               1939
                                                                                                                                                                                     1879
                                                                                                                                                                                                                        1819
                                                                                                                                                                                                                                                              1759
                                                                                                                                                                                                                                                                                                 1699
                                                                                                                                                                                                                                                                                                                                     1639
                                                                                                                                                                                                                                                                                                                                                                          1579
                                                                                                                                                                                                                                                                                                                                                                                                             1519
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1159
                                                                                                              1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1099
                                                                                                                               655
                                                                                                                                                                  635
                                                                                                                                                                                                       615
                                                                                                                                                                                                                                                                              575
                                                                                                                                                                                                                                                                                                                                                      535
                                                                                                                                                                                                                                                                                                                                                                                                                               495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   395
                                                                                                                                                                                                                                                                                                                                                                                           515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           435
 Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata;
Eukaryota; Metazoa; Primates;
                                             CQ730352
Sequence 16286 from Pat.
CQ730352
CQ730352.1 GI:42303963
                                                                                                                                                                                                                                                                                                                                              AlaTrpArgThrGluCysAsnGlnCysLysAlaProLysProGluGlyPheLeuProPro
                                                                                                                                                                                                                                                                                                                                                                        ValGlnHisArgAlaGlyAspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProTyr
                                                                                                                                                           GlyArgGlyGlyProGlyLysMetAspLysGlyGluHisArgGlnGluArgArgAspArg
                                                                                                                                                                                    CGAGGTGGCCCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAGGA
                                                                                                                                                                                                                                AspArgGlyGlyPheArgGlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArg
                                                                                                                                                                                                                                                                     ArgGlyGlyLeuMetAspArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                       GlyGlyPheProProArgGlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAGGCCCAGGAGGTCCTGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyGlyProGlyProGlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AspAspLeuAlaAspPhePheLysGlnCysGlyValValLysMetAsnLysArgThrGly
                                                                                                                                                 GGACGTGGAGGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGG
                                                                                                                                                                                              ArgGlyGlyProGlyGlyProProGlyProLeuMetGluGlnMetGlyGlyArgArgGly
                                                                                                                                                                                                                         GACAGAGGT
                                                                                                                                                                                                                                                              AGAGGT
                                                                                                                                                                                                                                                                                                 CCCTTTCCGCCCCCGGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGA
                                                                                                                                                                                                                                                                                                           ProPheProProGlyGlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                             GGAGGCTTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGTCCTATGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ValSerTyrGluAspProProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATGAAGACTCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTA 115
                                                                                                                                                                                                                                                                                                                                    GGCCTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGA
                                                                                                             2004
                                                                                                                               656
                                                                                                                                                                                                                        2326 bp DNA
Patent WO02068579.
 Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                          linear
                                                                          PAT
                                                                         03-FEB-2004
                                                                                                                                                                                     1938
                                                                                                                                                                                                                                                             1818
                                                                                                                                                                                                                                                                                                1758
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1458
                                                                                                                                                1998
                                                                                                                                                                                                                        1878
                                                                                                                                                                                                                                                                              594
                                                                                                                                                                                                                                                                                                                                     1698
                                                                                                                                                                                                                                                                                                                                                                          1638
                                                                                                                                                                                                                                                                                                                                                                                                            1578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1218
                                                                                                                                                                  654
                                                                                                                                                                                                      634
                                                                                                                                                                                                                                          614
                                                                                                                                                                                                                                                                                                                   574
                                                                                                                                                                                                                                                                                                                                                                                          534
                                                                                                                                                                                                                                                                                                                                                                                                                              514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
S
                                                                                                                                          S
                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                      S
                  밁
                               5
                                                     밁
                                                                 $
                                                                                      망
                                                                                                      5
                                                                                                                        밁
                                                                                                                                                                 뭐
                                                                                                                                                                              S
                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-791-017A-2 (1-656) x CQ730352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ĕ
 245
                                                                                           548
                                                                                                                               488
                                                                                                                                                                                                                        125
                                    225
                                                      608
                                                                                                                                                165
                                                                                                                                                                  428
                                                                                                                                                                                    145
                                                                                                                                                                                                      368
                                                                                                                                                                                                                                          308
                                                                                                                                                                                                                                                                               248
                                                                                                            185
                                                                                                                                                                                                                                                            105
                                                                                                                                                                                                                                                                                                                   188
                                                                                                                                                                                                                                                                                                                                                       128
                                                                                                                                                                                                                                                                                                85
                                                                                                                                                                                                                                                                                                                                    65
                                                                                                                                                                                                                                                                                                                                                                         45
                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                           25
                                                                                                                                                                                                                                                                                                                                                                                                                               æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Venter, C.J., Adams, M.C., Li, P.W. and Myers, E.W. Kits, such as nucleic acid arrays, comprising a majority humanexons or transcripts, for detecting expression and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Patent: WO 02068579-A 16286 06-SEP-2002; PE Corporation (NY) (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    thereof
                                                                                                                                                                                                                                                                                                                                                                                          ProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSerTyrGlyThrTyr
                                                     ValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThrGlnProAlaTyr
                                                                                                                                                                                                                                                                                                                                                     GlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSerTyrGlyGlnGln
                    SerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyrProProGlnThr
                                                                                                                              TATGGACAGAGTAACTACAGTTATCCCCCAGGTACCTGGGAGCTACCCCCATGCAGCCAGTC
                                                                                                                                       TyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrProMetGlnProVal
                                                                                                                                                                 CCAGCCTATGGGCAGCAGCCAGCCACCTGCACCTACAAGACCGCAGGATGGAAACAAG
                                                                                                                                                                                                                ProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGlnAspGlyAsnLys
                                                                                                                                                                                                                                                                               GCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACA
                                                                                                                                                                                                                                                                                         AlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThrThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/mol_type="unassigned DN/
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. .2326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3.22e-76
3602.00
99.85%
99.85%
99.15%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (1-2326)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2326
652
0
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a majority
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              other uses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        e
E
                                                      667
                                                                        224
                                                                                                                                                184
                                                                                                                                                                                                                                                                                                                                                                         64
                                                                                                                                                                                                                                                                                                                                                                                                            44
                   727
                                    244
                                                                                           607
                                                                                                           204
                                                                                                                              547
                                                                                                                                                                  487
                                                                                                                                                                                    164
                                                                                                                                                                                                      427
                                                                                                                                                                                                                        144
                                                                                                                                                                                                                                          367
                                                                                                                                                                                                                                                             124
                                                                                                                                                                                                                                                                              307
                                                                                                                                                                                                                                                                                                104
                                                                                                                                                                                                                                                                                                                    247
                                                                                                                                                                                                                                                                                                                                     84
                                                                                                                                                                                                                                                                                                                                                       187
                                                                                                                                                                                                                                                                                                                                                                                            127
                                                                                                                                                                                                                                                                                                                                                                                                                               67
```

δ

B & B & B & B

밁

S

8 8 8 8 8 8 8 8 8 8 8 8 8 8

FEATURES

This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 667 Location/Qualifiers

6679714

Series: Plate:

Row:

Column:

밁

8 8 8 8 8 8 8 8 8

```
RESULT 13
BC068226
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mallind 143 Bullet143 ROUGHLEAR ROUG
                                                                                                                                                              CONTH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-remail.nih.gov
Tissue Procurement: Dr. Jim Lin, University of Iowa
cDNA Library Preparation: M. Bento Soares, University of Iowa
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: University of Iowa, Dr. M. Bento Soares and Dr.
Thomas L. Casavant.
Web site: http://genome.uiowa.edu
Contact: bento-soares@niowa.edu; tom-casavant@uiowa.edu
Bonaldo, M.F., Akabogu, I., Bair, T., Bair, J., Crouch, K., Davis, A.,
Fishler, K., Keppel, C., Kucaba, T., Lebeck, M., Melo, A., Schaefer, K.,
Scheetz, T., Smith, C., Snir, B., Tack, D., Trout, K., Walters, J.,
Casavant, T., Soares, M.B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BC068226.1
MGC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; I
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Director MGC Project.

Direct Submission
Submitted (30-MAR-2004) National Institutes of Health, Mammalian Sene Collection (MGC), Cancer Genomics Office, National Cancer Gene Collection (MGC), Cancer Genomics Office, National Cancer Gene Collection (MGC), Cancer Genomics Office, National Cancer Gene Collection (MGC), Cancer Genomics Office, National Cancer Genom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BC068226 2189 bp mRNA linear ROD 23-AUG-20 Mus musculus Ewing sarcoma breakpoint region 1, mRNA (cDNA clone MGC:61279 IMAGE:5707017), complete cds.

BC068226 COMPANY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF T
Clone distribution: MGC clone distribution through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12477932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         oLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGlyLysMetAspLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sGlyGluHisArgGlnGluArgArgAspArgProTyr 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATGGACCGAGGTGGCTTTGGTGGAGGAGGACGAGGTGGCCCTGGGGGGGCCCCCTGGACC 1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTGATGGAACAGATGGGAAGAAGAGAGGACGTGGAAGACCTGGAAAAATGGATAA 1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 2189)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (house mouse)
      information can be found http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear ROD 23-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Euteleostomi;
; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            644
```

```
Query
DB:
                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                       US-10-791-017A-2 (1-656) x BC068226 (1-2189)
                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SgS
                                                                                                                                                                                                                                                                                                                                                                                                                                8
0
:
                                                                                                                                                                                                                                                                                                                                                                                Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                335
                  121
                                                                                        275
                                                                                                                                         215
                                                                                                                                                                                        155
                                                                101
                                                                                                              18
                                                                                                                                                               61
                                                                                                                                                                                                                4
                                                                                                                                                                                                                                         95
                                                                                                                                                                                                                                                                21
                                                                                                                                                                                                                                                                                         35
                                                                                                                                                                                                                                                                                                                 \vdash
ACCACTGCTACAGTCACCACAACGCAGGCCT
                                                          ThrThrAlaThrValThrThrGinAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                    ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrglyThrGlyAlaTyrAspThr 100
                                                                                                                                      TACGGGCAGACTGCATATGCAACTTCTTACGGACAGCCTCCCACTGGTTATAGCACTCCA
                                                                                                                                                    TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                       TATGGAACCTATGGACAGCCTACTGATGTCAGCTATACTCAGGCTCAGACCACTGCCACC
                                                                                                                                                                                                     TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                      TACACCGCCCAGCCAACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                                                                                                                                                                                                                                                    TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                       ATGGCGTCCACGGATTACAGTACCTATAGTCAAGCTGCAGCCCAGCAGGGCTACAGTGCT
                                                                                                                                                                                                                                                                                                    MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                       ACTGCCCCGCAGGCGTACAGCCAGCCTGTGCAGGGATATGGCACTGGGACTTATGACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Mus mus
/mol_type="mRNA"
/strain="C57BL/6"
/db_xref="taxon:10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /gene="Ewsr1"
/note="synonyms: Ews, Ewsh"
/db_xref="LocusID:14030"
/db_xref="MGI:99960"
35.7.2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:10090"
/clone="MGC:61279 IMAGB:5707017"
/tissue_type="Brain, mouse 15.5 (
/clone_Tib="NIH_BMAP_EVO"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         note="Vector: pYX-ASC"
                                                                                                                                                                                                                                                                                                                                                                  1.06e-75
3579.00
99.24%
97.87%
98.51%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      musculus"
                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                 Gaps:
                                                                                                                                                                                                                                                                                                                                                              2189
642
9
5
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               dpc"
                                       1
               140
                                                               120
                                       394
                                                                                       334
                                                                                                                                                               80
                                                                                                                                                                                                                                        154
                                                                                                                                       274
                                                                                                                                                                                     214
                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                               40
                                                                                                                                                                                                                                                                                      94
   밁
                   S
                                                밁
                                                                    Ś
                                                                                           밁
                                                                                                                    8
                                                                                                                                                문
                                                                                                                                                                   ঠ
                                                                                                                                                                                                 밁
                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
   1475
                                                  1415
                                                                                                 1355
                                                                                                                                                                                                  1235
                                                                                                                                                                                                                                                  1175
                                                                                                                                                                                                                                                                                                   1115
                                                                                                                                                  1295
                                                                                                                                                                                                                                                                                                                                                   1055
                         481
                                                                                                                          441
                                                                                                                                                                                                                                                                        381
                                                                         461
                                                                                                                                                                        421
                                                                                                                                                                                                                         401
                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                          341
                                                                                                                                                                                                                                                                                                                                                                                                    995
                                                                                                                                                                                                                                                                                                                                                                                                                           321
                                                                                                                                                                                                                                                                                                                                                                                                                                                   935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    395 CAGCCTGCCTACCCCACCTATGGCCAGCAGCCAACAGCCACCGCACCTACCAGACCACAG
               GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
 GGAGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGACAGAGGGGGCTTCCCTCCAAGA
                                                             ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                AAAGTGTCTCTTGCCCGAAAGAAGCCTCCAATGAACAGCATGCGGGGAGGCATGCCACCT
                                                                                                            LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                               CCAACTGCAAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGAAGCAAACTT
                                                                                                                                                                                                TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro 420
                                                                                                                                                                                                                                                            PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                             SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                               ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProSerLeuGlyTyrGlyGlnSerAsmTyrSerTyrProGlnValProGlySerTyrPro
                                                  CGTGAGGGCAGGGGATGCCACCACCACTTCGTGGAGGTCCTGGTGGCCCAGGAGGCCCCT
                                                                                                                                                                 ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                AGTGCAATTTATGTGCAAGGATTAAATGACAATGTGACTCTGGATGATCTGGCAGACTTC
                                                                                                                                                                                                                                                                                                                                                 GATGAAGGACCAGATCTTGATCTAGGCCTTCCTATAGATCCCGATGAAGACTCTGACAAC
                                                                                                                                                                                                                                                                                                                                                              AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                                                                                                                                                                                 CGCGGTGGACTGGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCAGGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGGCGGGAGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                 TTTAAGCAGTGTGGGGTTGTCAAGATGAACAAGAGAACTGGACAACCCATGATCCATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TyrG1yG1nG1nSerSerPheArgG1nAspHisProSerSerMetG1yVa1TyrG1yG1n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCCCTCAGACTGGATCCTACAGCCAGGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGACAACI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTAGTTACGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAGCCGAGCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCAGCCTAGGATATGGACAGAGTAACTACAGCTATCCCCAGGTACCTGGGAGCTACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATGGTAACAAGCCTGCTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTATAACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
 1534
                                                                         480
                                                1474
                                                                                                1414
                         500
                                                                                                                         460
                                                                                                                                                 1354
                                                                                                                                                                        440
                                                                                                                                                                                                 1294
                                                                                                                                                                                                                                                                        400
                                                                                                                                                                                                                                                                                                1174
                                                                                                                                                                                                                                                                                                                                                 1114
                                                                                                                                                                                                                                                                                                                                                                                                  1054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         280
                                                                                                                                                                                                                                                                                                                         380
                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                           340
                                                                                                                                                                                                                                                                                                                                                                                                                                                  994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    454
                                                                                                                                                                                                                                                 1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
```

중 유

ठ

ई 밁 ş 멍 S 밁 S

문

S

F

رلہ

Alignment Scores: Pred. No.: 3571.50 Matches: 643 Percent Similarity: 99.24* Best Local Similarity: 98.02* Mismatches: 1 Query Match: 6 1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla Db 7 ATGGCGTCCACGGATTACGTACCTATAGTCAGGACTCCAGCAGTAGTCGT Db 11 TACACCGCCCAGCCAACTCAAGGATATGCACAGCACCCAGGCATATGGGCAACAAAGC 17 TACACCGCCCAGCCAACTCAAGGATATGCACAGCACCCAGGCATATGGGCAACAAAGC 17 TACACCGCCCAGCCAACTCAAGGATATGCACAGCACCCCAGGCATATGGGCAACAAAGC 17 TACACCGCCCCAGCCAACTCAAGGATATGCACAGCACCCCAGGCATATGGGCCAACAAAGC 17 TACACCGCCCCAGCCAACTCAAGGATATGCACAGACCACCCCAGGCATATGGGCCAACAAAGC 17 TACACCGCCCCAGCCAACTCAAGGATATGCACAGACCACCCAGGCATATGGGCCAACAAAGC 17 TACACCGCCCAGCCAACTCAAGGATATGCACAGACCACCCAGGCATATGGGCCAACAAAGC 17 TACACCGCCCAGCCAACTCAAGGATATGCACAGACCACCCAGGCCATATGGGCCAACAAAGC 17 TACACCGCCCAGCCAACTCAAGGATATGCACAGACCACCCAGGCCATATGGGCCAACAAAGC 17 TACACCGCCTAGCCAACTCAAGGATATGCACACCCAACCCCAGGCCATATGGGCCAACAAAGC 17 TACACCGCCTAGCAACTCAAGGATATGCACACACCCAACCCAGGCCATATGGGCCAACAAAGC 17 TACACCGCCTAGCAACTCAAAGGATATGCACACCCAACCCAAGGCATATTGGGCCAACAAAGC 17 TACACCGCCTAGCAACTCAAAGGATATGCACAACACACCCAACCCAACACAAAGC 17 TACACCGCCTAGCAACTCAAAGGATATGCACACCACCCAACCCAACACAAAGC 17 TACACCGCCTAGCAACTCAAAGGATATGCACACCCAACCCAACCCAACACACAAAGC 17 TACACCGCCTAGCAACTCAAAGGATATGCACACCCAACCAACAACAAACCAACCAACCAACCAACCAACCAACCAACCAACCAACCAACCAACCAACAAAA		RESULT 14 AX305537 AX305537 AX305537 DEFINITION Sequence 288 from Patent WOO188188. ACCESSION AX305537 VERSION AX305537 AX305537 ORGANISM Mus musculus (house mouse) ORGANISM Mus musculus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. REFERENCE 1	Qy 621 ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly 640	Qy 581 ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg 600	Qy 501 GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly 520
\$ \$ \$ \$ \$ \$ \$ \$	p	25 S S S S S S S S S S S S S S S S S S S	Q Q Q Q Q Q Q Q Q Q	D	\$ \$ \$ \$ \$ \$ \$ \$
321 ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet 340	261 TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln 280	201 ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr 220	161 ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro 180	121 GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln 140	41 TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr 60

```
REFERENCE
AUTHORS
TITLE
JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                     KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                           RESULT 15
MMEWS
LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                     र्
                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                  र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ş
     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1794
                                                                                                                                                                                                                                                                                                           1974
                                                                                                                                                                                                                                                                                                                                                                1914
                                                                                                                                                                                                                                                                                                                                                                                                                       1854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1254
                                                                                                                                                                                                                                                                                                                                     641
                                                                                                                                                                                                                                                                                                                                                                                             621
                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           401
                                                                                                                                                                                              M.musculus EWS mRNA.
X79233
X79233.1 GI:488512
EWS gene.
                                                                      Cloning and Genomics 23 95130099
Delattre,O.
Direct Submission
Submitted (13-MAY-1994)
                                                                                Plougastel, B., Mattei, M.G., Thomas, G. and Delattre, O. Cloning and chromosome localization of the mouse Ews Genomics 23 (1), 278-281 (1994)
                                                                                                                                                                      Mue
                                                                                                                                         Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                      MMEWS
                                                          829090
                                                                                                                                                                                                                                                                                                                        LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                     GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAppArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAACTGCAAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGAAGCAAACTT
                                                                                                                                                                                                                                                                                                                                                                                ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                                                                                                                      GGTGGCCGTGGAATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGTCCTGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTGGTGGTCCTGGAGGAATGTTCAGAGGTGGCAGAGGTGGAGACAGAGGAGGCTTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgGlyGlyProGlyMetPheArgGlyGlyArgGlyGlyAepArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GETGATCGTGGACGAGGTGGCCCTGGTGGCATGCGAGGAGGAGGAGGAGGAGGACTCATGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TACCTGGATAAGGAGACAGGAAAAGCCTAAAGGGGACGCCACAGTGTCCTATGAAGATCCA
                                                                                                                                                                                                                                                                                                           NANATGGATNAAGGCGAGCACCGTCAGGAACGCAGAGACCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                CCTCCTGGACCTTTAATGGAACAGATGGGAAGAAGAAGAGGCCGGACGTGGAGGACCTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AACCAGTGTAAGGCCCCTAAGCCCGAGGGCTTCCTCCCGCCACCCTTTCCACCTCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACTGGCAGTGTCCCAATCCGGGCTGTGGAAACCAGAACTTCGCTTGGAGAACAGAATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGACAGAGGGGGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGTGAGGGCAGGGTATGCCACCACCACTTCGTGGAGGTCCTGGTGGCCCAGGAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ANAGTGTCTCTTGCCCGANAGNAGCCTCCAATGAACAGCATGCGGGGAGGCATGCCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGCCCCGAGGCTCCAGAGGAAACCCCCTCTGGAGGAGGAAATGTCCAGCACCGAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                           (bases 1 to
                                                                                                                                                                   gene.
musculus (house
musculus
                                            2188)
                                                                                                                                        Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                   тоцве)
    0
                                                                                                                                                                                                                                                      2188
  Delattre, Lab
                                                                                                                                                                                                                                                   å
                                                                                                                                                                                                                                                     mRNA
  de Genetique des
                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                          2021
                                                                                                                                                                                                                                                                                                                                     656
                                                                                                                                                                                                                                                     ROD
                                                                                                gene
                                                                                                                                                                                                                                                     26-JUN-1995
                                                                                                                                         Mue
                                                                                                                                                                                                                                                                                                                                                                1973
                                                                                                                                                                                                                                                                                                                                                                                                                      1913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   440
                                                                                                                                                                                                                                                                                                                                                                                          640
                                                                                                                                                                                                                                                                                                                                                                                                                                                 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SdS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ٠.
```

```
Tumeurs-Inst. Curie, 26 rue d'Ulm, 75231 Paris, Cedex 05, FRANCE Location/Qualifiers
/protein_id="Caa55815.1"
/db_xref="G1:488513"
/db_xref="G1:488513"
/db_xref="G1:488513"
/db_xref="G1:488513"
/db_xref="G1:488513"
/db_xref="G1:488513"
/db_xref="Caa55813"
/db_xref="Caa56813"
/daa5813"
/daa5813"
/daa5813"
/daa5813"
/daa5813"
/daa5813"
/daa5813"
/daa5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /gene="EWS"
57. .2024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /tissue_type="testis"
/dev_stage="adult"
1. .2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene="EWS"
codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Mus musculus"
/mol_type="mRNA"
/db_xref="taxon:10090"
/chromosome="11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     clone="ST1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             map="11 A1-A3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .2024
```

1.58e-75 3571.50 99.24% 98.02% 98.31% Conservative: Mismatches: Indels:

Length: Matches:

2188 643 8 1 1

US-10-791-017A-2 (1-656) x MMEWS (1-2188)

	;	
. 8	ب	MetAlaSerThrAgpTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla 20
망	57	ATGGCGTCCACGGATTACAGTACCTATAGTCAAGCTGCAGCCCAGCAGGGGCTACAGTGCT 116
Ş	21	TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer 40
Ф	117	117 TACACCGCCCAGCCAACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC 176
δ	41	TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr 60
망	177	TATGGAACCTATGGACAGCCTACTGATGTCAGCTATACTCAGGCTCAGACCACTGCCACC 236
δ	61	TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro 80
Db d	237	TACGGGCAGACTGCATATGCAACTTCTTACGGACAGCCTCCCACTGGTTATAGTACTCCA 296
Ş	18	ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr 100
Вb	297	ACTGCCCCCAGGCGTACAGCCAGCCTGTGCAGGGATATGGCACTGGGGCTTATGACAGC 356
Ş	101	ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr 120
Вb	357	ACCACTGCTACAGTCACCACAACGCAGGCCTCTTACGCAGCTCAGTCAG
δ	121	GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln 140
Db dd	417	CAGCCTGCCTACCCCACCTATGGCCAGCCAGCCAACAGCCACCGCACCTACCAGACCACAG 476
δ	141	AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln 160

	01 G1/ProArgG4/SerArgG4/AsubroSerG4/G4/AsubandarG4111111111111111111111111111111111111	
S O	u 4 0—0	
480 1493	461 ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro	
460 1433	441 LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro	
440 1373	421 ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu	
420 1313	401 TyrleuasplysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro	
400 1253	381 PheLyeGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle	
380 1193	361 SeralaileTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe 	
360 1133	341 AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn 	
340 1073	321 ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet	
320 1016	301 GlyargGlyargGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGly 	
300 956	281 GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg	
280 896	261 TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln	
260 836	241 ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer	
240 776	221 GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr 	
220 716	201 ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr 	
200	181 MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro	
180 596	161 ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro	
536		

8 8 8 8 8 8

성 음 성

음 성 음

8 8 8 8

8 유

중 유

8 & 8

8 8 8 8

₽ B	1554 GGGCCCCGAGGCTCCAGAGGAAACCCCTCTGGAGGAGGAAATGTCCAGCACCGAGCTGGA 1613	613
Ş	neAlaTrpArgThrGluCys	540
В	1614 GACTGGCAGTGTCCCAATCCGGGCTGTGGAAACCAGAACTTCGCTTGGAGAACAGAATGC	1673
ğ	541 AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly S	560
B	1674 AACCAGTGTAAGGCCCCTAAGCCCGAGGGCTTCCTCCCGCCACCCTTTCCACCTCCGGGT	1733
Ş	561 GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp :	580
Дb	1734 GGTGATCGTGGACGAGGTGGCCCTGGTGGCATGCGAGGAAGAAGAGGACTCATGGAC	1793
Ş	581 ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg (600
皮	1794 CGTGGTGGTCCTGGAGGAATGTTCAGAGGTGGCAGAGGTGGAGACAGAGGAGGCTTCCGA	1853
Q	601 GlyGlyArgGlyMetAspArgGlyGlyBheGlyGlyGlyArgArgGlyGlyProGlyGly	620
망	1854 GGTGGCCGTGGAATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGTCCTGGGGGG	1913
Q	621 ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly (640
망	1914 CCTCCTGGACCTTTAATGGAACAGATGGGAAGGAAGAGAGGCGGACGTGGACCTTGGG	1973
Ş	641 LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656	
당	1974 AAAATGGATAAAAGGCGAGCACCGTCAGGAAACGCAGAGACCCGGCCCTAC 2021	

Search completed: February 21, 2005, 02:07:17 Job time: 7076.69 secs

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -MODEL-frame+ D2n.model -DEV=xlp
-MODEL-frame+ D2n.model -DEV=xlp
-QC/cgn2_1/USFTO_spool_p/US10791017/runat_17022005_125806_22064/app_query.fasta_1.1358
-DB=N_Genneseq_16Dec04_-QFMT=fastap_-SUFFIX=p2n.rng_-MINNATCH=0.1 -LOOPCL=0
-LOOPCEXT=0 -UNITS=bblts_STRATT=1 -END=1 -MATRIX=blosum62 -TRANS=human40.cdi
-LIST=45 -DCCALIGN=200 -THR_SCORE-pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15
-MODE=LOCAL -OUTFMT=pto -NORM-ext -HEARSIZE=500 -MINLEN=0 -MAXLEN=200000000
-USER=US10791017_@CGN_1_1_866_@runat_17022005_125806_22064 -NCPU=6 -ICPU=3
-NO_MAAP -LARGEQÜERY -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Command line parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein -
                                                                                                                                                             Pred. No.
Score
                                                                                                             d. No. is the number of results predicted by chance to have a
re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nucleic search,
Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Xgapop 10.0 , 1
Ygapop 10.0 , 1
Fgapop 6.0 , 1
Delop 6.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N_Geneseq_16Dec04:*
1: geneseqn1980s:*
2: geneseqn1990s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-791-017A-2
3633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        February 20, 2005, 16:18:03; Search time 830.229 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4390206 segs, 2959870667 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MASTDYSTYSQAAAQQGYSA.....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                      geneseqn2003bs:*
                                                                                                                                                                                                                                                                                                                           geneseqn2002bs:*
geneseqn2003as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 geneseqn1980s:*
geneseqn1990s:*
                                                                                                                                                                                                                                                                                                                                                                                                geneseqn2001bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                        geneseqn2001as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                              geneseqn2000s:*
                                                                                                                                                                                                                                                                                                                                                                          geneseqn2002as:*
                                                                                                                                                                                                                               geneseqn2003ds:*
geneseqn2004as:*
                                                                                                                                                                                                         geneseqn2004bs:*
                                                                                                                                                                                                                                                                             geneseqn2003cs: *
Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Xgapext
Ygapext
Fgapext
Delext
  Ħ
                                                                      SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (without alignments)
4677.443 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .GGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8780412
Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
د.
```

Aai17281 Probe #72	AAI17281	4.	540		839	45	
-	ъ	9	568	•	868.5	44	
Acn37539 Tumour-as	3 ACN37539	13	684	•	950	43	
Ach40478 Human foe		9	550	•	961	42	
Aaa64661 cDNA enco	AAA64661	w	2126	•	1003.5	41	
Human		12	2144	27.7	1006	40	
œ		بر	2153		1010	39	
X	×	6	2153		1010	38	
1 Human o			1610	•	1046.5	37	
7 Breas		H	2299	٠	1181	36	
Human	AAK52473	4	2213		1249	35	Ω
Aak52472 H		4	2213	34.4	1249	34	a
Ade77157	2 ADE77157	12	1939	35.1	1273.5	ω ω	
Ð		4	2209	35.3	1281	32	
œ		13	1822	35.3	1281.5	31	
Abs73275 DNA encod		9	1822	35.3	1281.5	30	
Ξ	Þ	4	2179	35.3	1282	29	
		н	1824	35.3	1282	28	
		_	1824	35.3	1282	27	
σ		Н	1824	35.3	1282	26	
	ABK84149	6	1824	35.3	1282	25	
	⊳	6	1824	35.3	1282	24	
Adi26112 Human cDN		12	1832	35.5	1290	23	
æ		13	845	36.4	1323.5	22	
0		13	856	37.9	1378	21	
Humar		4	1462	38.1	1385	20	
		N	2412	39.1	1420	19	
		Ŋ	2403	39.1	1420	18	
◛	Þ	0	1431	39.7	1444	17	
		_	1807	87.5	3178.5	16	
Tumot		_	2177	88.4	3210	15	
		Н	2026		3210	14	
σ		ᆫ	1988	•	3277	13	
6 Huma		N	3309		3315	12	
w		0	2273	5		11	ი
-		ຫ	2388	•	3531.5	10	
Mous		6	2188	8	ın	g	
a	Þ	δ	2176	9	9	œ	ი
		_	2390	0		7	
Ads16277 Human cDN	.3 ADS16277	_	2390	100.0	3633	0	

ALIGNMENTS

```
RESULT 1
AAQ50643
 CDS
                                                                                                                                      chromosomal translocation; chimeric; chimaeric; Ewing sarcoma; Ews gene;
malignant melanoma; hum-fli-1;
primitive peripheral neuroectodermal tumour; human chromosome 11;
                          polyA_signal
                                                                                                                                                                           Human Ews gene clone BF1AC5 from foetal brain cDNA library.
                                                                                                                                                                                              25-MAR-2003
26-MAY-1994
                                                                                                                                                                                                                         AAQ50643;
                                                                                                                                                                                                                                           AAQ50643 standard; cDNA; 2371 BP:
WO9323549-A2
                                           polyA_signal
                                                                                                            Homo sapiens
                                                                                                                               human chromosome 22; ss.
                                                                                                                                                                                              (revised)
(first entry)
              /*tag= b
/*tag= b
/*11. .2336
                                           /product= "EWS protein"
/transl_except= pos:1729.
2143. .2148
                                                                                Location/Qualifiers
                                                      .1731;
```

3633 3633 3633 3633

100.0

2371 2372 2390 2390 2390 2390

೯೯೯

AAQ50643 ADQ86032 ABK84628 ABK64822 ABN97274

Aaq50643 Human Ews Adq86032 Human tum Abk84628 Human cDN Abk64822 Human ben Abn97274 Gene-#377

```
유 성
                                                                                                                                    음 성
                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                      ર્ક
                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best I
Query
DB:
                 δ
                                            밁
                                                              5
                                                                                                                                                                                     밁
                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores:
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-791-017A-2 (1-656) x AAQ50643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Aurias A,
Thomas G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The probes 22RR3 and 22RR12 were used to screen a human foetal brain library (Stratagene cat.# 936206). The clone BFLAC5 was identified an sequenced. It represents the entire coding region and 3'-UTR of the gene. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New nucleic acid of EWS gene and its hybrid(s) - contg. gene sequence involved in chromosomal trans-location, also derived mRNA, probes, fusion proteins etc., for diagnosis and treatment of Ewing sarcoma and melanoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 2371 BP; 639 A; 587 C; 659 G; 486 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (CNRS ) CNRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1993-386580/48
                                            445
                                                                                           385
505
                    161
                                                                   141
                                                                                                                                          325
                                                                                                                                                               101
                                                                                                                                                                                       265
                                                                                                                                                                                                                                                                                  145
                                                                                                                121
                                                                                                                                                                                                                                     205
                                                                                                                                                                                                           81
                                                                                                                                                                                                                                                         13
                                                                                                                                                                                                                                                                                                        4
                                                                                                                                                                                                                                                                                                                                85
                                                                                                                                                                                                                                                                                                                                                     21
                                                                                                                                                                                                                                                                                                                                                                             25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAR44555.
                                            GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                                                                               TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                              TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCC
              ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                          CAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAG
                                                                                                                                                    ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                                                                                      ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC
                                                                                                                                                                                                    ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                   TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA
                                                                                                                                                                                                                                                 TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                  TATEGAACCTATEGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC
                                                                                                                                                                                                                                                                                                                                              TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                             MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Delattre O,
Zucman J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CENT NAT RECH SCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93WO-FR000494.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             92FR-00006123.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6; 123pp; French.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.69e-116
3633.00
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Desmaze
                                                                                                                                                                                                                                                                                                                                                                                                                           (1-2371)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'n
                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Melot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                 2371
656
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Plougastel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             in cDNA
land
le Ews
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
564
                    180
                                            504
                                                                    160
                                                                                                                140
                                                                                                                                          384
                                                                                                                                                                120
                                                                                                                                                                                      324
                                                                                                                                                                                                            100
                                                                                                                                                                                                                                     264
                                                                                                                                                                                                                                                                                 204
                                                                                                                                                                                                                                                                                                         6
                                                                                                                                                                                                                                                                                                                               144
                                                                                                                                                                                                                                                                                                                                                       40
                                                                                                                                                                                                                                                                                                                                                                             84
                                                                                          444
                                                                                                                                                                                                                                                           80
                                                                                                                      δ
                        δ
                                                       문
                                                                         5
                                                                                                    멹
                                                                                                                                                    밁
                                                                                                                                                                     Ş
                                                                                                                                                                                          밁
                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                          片
                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
           1585
                                                                                                     1465
                                                                                                                                                    1405
                                                                                                                                                                                                 1345
                                                                                                                                                                                                                                                1285
                                                                                                                                                                                                                                                                                            1225
                                                                                                                                                                                                                                                                                                                                          1165
                                                                                                                                                                                                                                                                                                                                                                                         1105
                                                                                                                                                                                                                                                                                                                                                                                                                                      1045
                                                        1525
                                 521
                                                                                                                            481
                                                                                                                                                                           461
                                                                                                                                                                                                                        441
                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                   401
                                                                                                                                                                                                                                                                                                                                                                381
                                                                                                                                                                                                                                                                                                                                                                                                                                                            341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                        SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GluSerGlyGlyPheSerGlyProGlyGluAgnArgSerMetSerGlyProAspAsnArg
                                                                   GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                    GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                          PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                    AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGly
                        AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys 540
                                                                                                     GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA
                                                                                                                                                     CGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCT
                                                                                                                                                                 ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                  AAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCC
                                                                                                                                                                                                                LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                                                                                             ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                             TACCTGGACAAGGAAACAGGAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                                                                         TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                      GATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCAGGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCACCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGCAGCCAGTCACTGCACCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGACAGCAGAGTAGCTATGGT
                                                                              520
                                                                                                      1524
                                                         1584
                                                                                                                                                    1464
                                                                                                                                                                                                 1404
                                                                                                                                                                                                                                                1344
                                                                                                                                                                                                                                                                                             1284
           1644
                                                                                                                                                                                                                                                                                                                                            1224
                                                                                                                                                                                                                                                                                                                                                                  400
                                                                                                                                                                                                                                                                                                                                                                                         1164
                                                                                                                                                                                                                                                                                                                                                                                                                                      1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1044
                                                                                                                            500
                                                                                                                                                                           480
                                                                                                                                                                                                                        460
                                                                                                                                                                                                                                                                      440
                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                               380
                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     624
```

```
ARESULT 2
ADQ86032
ID ADQ86032
ID ADQ8
XX ADQ8
XX ADQ8
XX ADQ8
XX ADQ8
XX Huma
XX Huma
XX Huma
XX Homo
                          The present invention describes an isolated tumour-associated antigenic target (TAT) nucleic acid comprising: (a) any of 4622 nucleotide sequences (see SEQ ID NO:1 to 4622); (b) the full-length coding region of (a); (c) the complement of (a) or (b); (d) a sequence that has 80% sequence identity to (a)-(c); or (e) a sequence that hybridises to (a)-(c). Also described: (1) an expression vector comprising the above nucleic acid; (2) a host cell comprising the above expression vector; (3) a process for producing a polypeptide; (4) an isolated polypeptide comprising: (a) an amino acid sequence encoded by the full-length coding region of the above nucleotide sequences; (b) an amino acid sequence encoded by the full-length coding region of the above nucleotide sequences; or (c) a sequence having at least 80% identical to (a) or (b); (5) a chimeric polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New nucleic acid molecule and encoded polypeptide, for diagnosing, preventing or treating cell proliferative disorders such as cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADQ86032 standard; cDNA; 2372 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; SEQ ID NO 2904; 5504pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2004-534300/51.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Wu TD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-OCT-2002; 2002US-0418988P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      human; tumour-associated antigenic target; TAT; cytostatic; gene therapy; cancer; cell proliferative disorder; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human tumour-associated antigenic target (TAT) cDNA sequence #2904.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADQ86032;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH ) GENENTECH INC. (WUTD/) WU T D. (ZHOU/) ZHOU Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-OCT-2003; 2003WO-US029126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO2004060270-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Zhou Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp 580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTGGCCGGGGCATGGACCGAGGTGGCTTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGT 1824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
fused to a heterologous polypeptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
```

á 밁 र् 밁 8 밁 5 밁 S 문

밁

88888888888888888888888888888888 cc an isolated antibody that binds to the above polypeptide; (7) a process for producing the antibody; (8) an isolated oligopeptide that binds to the above polypeptide; (9) a tumour-associated antigenic target (TAT) composition of matter comprising the above (chimeric) polypeptide, (10) a cromposition of matter comprising the above (chimeric) polypeptide, (10) a composition of matter comprising the above (chimeric) polypeptide, (10) a composition of matter contained within the container; (12) methods of the composition of a cell that expresses the above protein, where the growth of the cell is at least in part dependent upon a growth comprising cells that express the above protein; (13) a method of therapeutically treating a mammal having a cancerous tumour comprising cells that express the above protein; (13) a method of described above; (15) methods of diagnosing the protein cell strate express the above protein; (14) a method of described above; (15) methods of diagnosing the protein cell scorder associated with increased expression or activity of the above protein, and (17) a method of binding an antibody, oligopeptide or cryanic molecule to a cell that expresses the protein described above. The TAT sequences have cytostatic activities, and can be used in gene therapy. The composition and methods are useful for diagnosing, cell proliferative disorder or cancer. The present sequence represents a cell proliferative disorder or cancer. The present sequence represents a cell proliferative disorder or cancer. The present sequence represents a cell proliferative disorder or cancer. The present sequence represents a cell proliferative disorder or cancer. The present sequence represents a cell proliferative disorder or cancer. The present sequence represents a cell proliferative disorder or cancer. The present sequence represents a cell proliferative disorder or cancer. The present sequence represents a cell proliferative disorder or cancer.

Sequence 2372 BP; 628 A; 589 C; 668 G; 487 T; 0 U; 0 Other;

0	Gaps:	13	DB:
0	Indels:	100:00%	Query Match:
0	Mismatches:	100.00%	Best Local Similarity:
0	Conservative:	100.00%	Percent Similarity:
656	Matches:	3633.00	Score:
2372	Length:	1.69e-116	Pred. No.:
			withinent acores:

US-10-791-017A-2 (1-656) x ADQ86032 (1-2372)

583	CCCAGCCTAGGATATGGACAGATAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCC	. 524	망
180	ProSerLeuGlyTyrGlyGlnSerAgnTyrSerTyrProGlnValProGlySerTyrPro	161	Ş
523	GATGGAAACAAGCCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG	464	뭣
160	AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln	141	Ş
463	CTGCTTATCCAGCCTATGGGCAGCAGCCAGCCAGCCGCACTGCACCTACAAGACCGCAG	404	ర్జ
140	GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln	121	Ş
403	ACCACTGCTACAGTCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACT	344	B
120	ThrThrAlaThrValThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr	101	8
343	ACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC	284	망
100	ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr	81	Ş
283	TATGGGCAGACCGACCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA	224	망
08	TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro	61	ş
223	TATGGAACCTATGGACACCTGATGTCAGCTATACCCCAGGCTCAGACCACTGCAACC	164	뮹
0	TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr	41	Ş
163	TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC	104	дb
40	TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer	21	Ş
103	ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCT	44	Дb
20	MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlyTyrSerAla	_	8

```
1544
                                                                                                                                                                                                                                   1424
                                                                                                                                                                                                                                                                                                             1364
                                                                                                                                                                                                                                                                                                                                                                                        1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1004
1604
                                                                                                                                                      1484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        341
                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                       461
                                                                                                                                                                                                                                                                                                                                                    441
                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                    AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                GlyProArgGlySerArgGlyAsnProSerGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                             GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                         ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                    LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyGlyArgGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnBroProThrSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                                                             AAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCC
                                                                                                                                                                                                                                                                                                                                                                                          CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                  ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCAGGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGTCTGGAGGATTTTCCCGGACCAGGAGAGAACCCGGAGCATGAGTGGCCCTGATAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTAT
                                                                                                                                                        GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1003
                                      540
                                                                            1603
                                                                                                                                                      1543
                                                                                                                                                                                                                                 1483
                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                             1423
                                                                                                                                                                                                                                                                                                                                                                                          1363
                                                                                                                                                                                                                                                                                                                                                                                                                              440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
1663
                                                                                                                  520
                                                                                                                                                                                                                                                                                                                                                    460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 703
```

유 성 유

S 문 ş 日 S 밁 ঠ 문 Ş В Ś 밁 5

음 성 밁 Ś 밁 S

```
밁
                      á
                                                 В
                                                                          S
                                                                                                      밁
                                                                                                                           5
                                                                                                                                                           밁
                                                                                                                                                                                 5
                                                                                                                                                                                                              В
                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                  片
                                                                                                                                                                                                                                                                                          S
  1964
                                                    1904
                                                                                                                                                           1784
                                                                                                                                                                                                               1724
                                                                                                                                                                                                                                                                    1664
                                                                                                         1844
                          641
                                                                              621
                                                                                                                                601
                                                                                                                                                                                                                                        561
                                                                                                                                                                                                                                                                                             541
                LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656
                                                                   ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                               GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                              ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                              GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                     AACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGT
                                                                                                                                                                                                                                                                                  AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProGly
                                                                                                                                                                                                               GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAAGAAGAGGTGGCCTCATGGAT
                                                                                                         GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGG
  2011
                                                                                                                                                                                                                                                                     1723
                                                       1963
                                                                                                         1903
                                                                                                                                                             1843
                                                                              640
                                                                                                                                   620
                                                                                                                                                                                      600
                                                                                                                                                                                                                                           580
```

ABK84628 standard; cDNA; 2390

ABK84628

14-AUG-2002 (first entry)

differentially expressed in granulocytic cells

cardiac reperfusion injury; renal reperfusion injury; ARDS; adult respiratory distress syndrome; inflammatory bowel disease; Crohn's disease; ucerative colitis; periodontal disease; Human; ss; granulocytic cell; DNA chip; bacterial infection; viral infection; parasitic infection; protozoal infection; fungal infection; sterile inflammatory disease; psoriasis; rheumatoid arthritis; glomerulonephritis; asthma; thrombogis; granulocyte activation; chronic inflammation; allergy

sapiens

WO200228999-A2

11-APR-2002

03-OCT-2001; 2001WO-US030821.

03-OCT-2000; 2000US-0237189P

Beazer-Barclay Y, Weissman MS, Yamaga Ś Vockley

2002-435328/46.

Detecting granulocyte activation by detecting differential expression of genes associated with granulocyte activation, which serves as diagnostic markers that is useful for monitoring disease states and drug toxicity.

Claim 1; SEQ ID NO 1199; 114pp; English.

S 닭 δ 밁 ঠ 닭 Ş 밁 S 밁 δ

밁 S 문

The invention relates to detecting (M1) granulocyte (GC) activation (GCA), by detecting the level of expression of gene(s) (Gs) identified DNA chip analysis as given in the specification, and comparing the expression level to an expression level in an unactivated GC, where differential expression of Gs is indicative of GCA. Also included are modulating (M2) GA by contacting GC with an agent that alters the expression of at least one gene in Gs; (2) screening (M3) for an agent capable of modulating GCA or an inflammation (especially chronic) in a á

```
Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-791-017A-2 (1-656) x ABK84628 (1-2390)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CC tissue, an allergic response in a subject, exposure of a subject to a pathogen or sterile inflammatory disease using the gene expression and continuous profile; (3) detecting (M4) an inflammation (especially chronic) in a cc tissue, an allergic response in a subject acc exposure of a subject to a cc pathogen or sterile inflammatory disease, by detecting the level of cc expression of the gene is indicative of inflammation; (4) treating cc response in a subject, exposure of a subject to a pathogen or sterile cc inflammation (especially chronic) or in a tissue, an allergic response in a subject, exposure of a subject to a pathogen or sterile cc inflammation disease, by contacting a tissue having inflammation with an expression of gene(s) from Gs in the tissue. M1 is useful for detecting GA; M3 is useful cc agent that modulates the expression of gene(s) from Gs in the tissue. M1 cc is useful for detecting an inflammation cc (especially chronic) in a tissue, an allergic response in a subject, cc exposure of a subject to a pathogen or sterile inflammatory disease (e.g. georiasis, rheumatoid arthritis, glomerulonephritis, asthma, thrombosis, cc cardiac reparfusion injury, renal reperfusion injury, ARDS, adult creptitatory distress syndrome, inflammatory bowel disease. Crohn's confiction, viral infection, parasitic infection, protozoal infection, confiction, parasitic infection, protozoal infection, compart of the present sequence represents a gene differentially cc conditions. The present sequence represents a gene differentially capturesed in granulocytes. Note: The sequence data for this patent did celectronic format directly from MIPO at celectronic format directly from MIPO at conditions. In the printed specification, but was obtained in celection, but by a condition of the above conditions. The present sequence data for this patent did celectronic format directly from MIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 2390 BP;
                                                                                    141
                                                                                                                                                                                                              344
                                                                                                                                                                                                                                                       101
                                                                                                                                                                                                                                                                                                                                                                                  224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               104
                                                                                                                            404
                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  164
                                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCT
                                                                                                                                                                                                                                      ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaAlaGlnGlnGlyTyrSerAla
  ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                           GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG
                                                                       AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                            CAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAG
                                                                                                                                                    GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                                                                              ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC
                                                                                                                                                                                                                                                                                                                    ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                                                                                                                                                              TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                        TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         645 A; 589 C; 668 G; 488 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.7e-116
3633.00
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2390
656
0
0
                                                                                                                                                                                                                                                   120
                                                                                    160
                                                                                                                            463
                                                                                                                                                                     140
                                                                                                                                                                                                                                                                                                                                     100
                                                                                                                                                                                                                                                                                                                                                                              283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 103
                                             523
                                                                                                                                                                                                            403
                                                                                                                                                                                                                                                                                                                                                                                                                       80
                                                                                                                                                                                                                                                                                                                                                                                                                                                             223
                                                                밁
                                                                                                     δ
                                                                                                                                              밁
                                                                                                                                                                                8
                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                               닭
                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઈ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      · 중 , 유
                                                                                                                                                1484
                                                                                                                                                                                                                                1424
                                                                                                                                                                                                                                                                                                               1364
                                                                                                                                                                                                                                                                                                                                                                                                 1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1004
                         521
                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                      461
                                                                                                                                                                                                                                                                                                                                                        441
                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys 540
                                                                                      GlyProArgGlySerArgGlyAsnProSerGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                     GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                         ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                       LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                           ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACCTGGACAAGGAAACAGGAAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCC
                                                                                                                                                                                                                                  CGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCT
                                                                                                                                                                                                                                                                                                                 ANAGTOTOCOTTGGTCGGNAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCC
                                                                                                                                                                                                                                                                                                                                                                                                 CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGTCTGGAGGATTTTCCGGACCAGGAGAAGAACCGGAGCATGAGTGGCCCTGATAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCAGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGCAGCCAGTCACTGCACCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCG
                                                                                                                                                1543
                                                                                                                                                                                                                             1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1003
                                                                                                                                                                                                                                                                                                                 1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1063
                                                                  1603
                                                                                                       520
                                                                                                                                                                                         500
                                                                                                                                                                                                                                                                                                                                                        460
                                                                                                                                                                                                                                                                                                                                                                                                   1363
                                                                                                                                                                                                                                                                                                                                                                                                                                        440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         703
```

Score:

ð 밁 र् 밁 ঠ

र् 밁

δ 밁 ঠ 밁

밁

밁 र्

8

```
The invention relates to a method of diagnosing (I) the onset or progression of benign prostatic hyperplasia (BPH), or screening (II) for or identifying an agent that modulates the onset or progression of BPH. The method is based on changes in gene expression in BPH tissue isolated from patients exhibiting different clinical states of prostate hyperplasia as compared to normal prostate tissue. (I) comprises detecting the expression levels of one or more genes (I) comprises from the subject that are differentially regulated compared to normal prostate cells. (II) comprises preparing a first gene expression profile of BPH cells or BPH-like cell population, exposing the cells to the
                                                                                                                                                                                                                                                 detecting exp
                                                                                                                                                                                                                                                                                                                                                                                                                                        07-AUG-2000; 2000US-0223323P.
05-JUN-2001; 2001US-00873319.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-AUG-2001; 2001WO-US024708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200212440-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; benign prostatic hyperplasia; BPH; prostate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human benign prostatic hyperplasia gene #717.
                                                                                                                                                                                              Disclosure; Page 399-400; 444pp; English
                                                                                                                                                                                                                                                                                                                     WPI; 2002-257476/30.
                                                                                                                                                                                                                                                                                                                                                       Munger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABK64822;
                                                                                                                                                                                                                                                 Identifying drugs for and diagnosing benign prostatic hyperplasia, detecting expression levels of one or more genes in prostate cells patient that are differentially regulated compared to normal prosta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-FEB-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABK64822 standard; DNA; 2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1604 GACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 621
                                                                                                                                                                                                                                                                                                                                                       ≅
                                                                                                                                                                                                                                                                                                                                                                                       JAPAN TOBACCO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGGAGGACGTGGAGGACCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyGlyArgGlyMetAspArgGlyGlyGlyGlyGlyArgArgGlyGlyFroGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABnGlnCysLysAlaProLysProGluGlyPheLeuProProProProPheProProPly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGT
                                                                                                                                                                                                                                                                                                                                                       Kulkarni P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first
                                                                                                                                                                                                                                                                                                                                                                                         INC.
                                                                                                                                                                                                                                                                                                                                                       Getzenberg RH,
                                                                                                                                                                                                                                                                                                                                                       Waga
                                                                                                                                                                                                                                                                                                                                                       ļ,
                                                                                                                                                                                                                                                                                                                                                       Yamamoto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             656
                                                                                                                                                                                                                                                                   from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      620
```

밁 ঠ 片 ð 밁 á 닭 ঠ 밁 Ś

밁 S

> **ព័ត្តព្រះព័ត្**តព្រះ agent, preparing a second gene expression profile of the agent exposed cells, and comparing the first and second gene expression profiles. (I) is useful for diagnosing the onset or progression of BPH. (II) is useful for identifying an agent that modulates the onset or progression of BPH. The methods are useful to present information identifying the expression level in a tissue or cells, by comparing the expression level of genes given in the specification in the tissue or cells to the level of expression of gene in the database, and displaying the expression levels of at least one gene in the tissue or cell sample compared to the expression level in BPH. Agents using (II) are useful for treating BPH or prostate cancer. ABK64106-ABK64860 represent human benign prostatic hyperplasia gene sequences of the invention

Sequence 2390 BP; 645 A; 589 û 668 G; 488 ;; 0 U; 0 Other;

	2					음 성	뭥	S	용 5	5	당	8	뭥	Ş	ğ	Ś	뮹	Ş	뮍	Ş	В	Ş	US-1	Alig Pred Scor Perc Best Quer DB:
AGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACT	erSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnPro	4	201 ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerS	181 MetGInProValThrAlaProProSer!\rProProThrSer!\rSerSerInrG.nP:	9 1	161 ProSerLeuGlyTyrGlyGlnSerAgnTyrSerTyrProGlnValProGlySerTyrP	464 G	141 AspGlyAsnLysProThrGluThrSerGlnPr	404 CAGCCTGCTTATCCAGCCTATGGGCAGCCAGCCAGCCAGC	121	344	T 101	Db 284 ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATAC	81	Db 224 TATGGGCAGACCTCATAGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA	61	164 TATGGAACCTATGGACA	41	104 TACACCGC	Qy 21 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSe	44 ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGCCTA	1 MetAlaSe		Alignment Scores: Pred. No.: 3633.00 Matches: 656 Percent Similarity: 100.00\$ Best Local Similarity: 100.00\$ Query Match: 66 Gaps: 2390 Matches: 656 Matches: 66 Gaps: 2390 Matches: 66 Gaps: 2390 Matches: 66 Gaps: 2390 Matches: 66 Gaps: 66 Gaps: 67 Gaps: 68
STTA	serTyr 240	GCTAT 703	erTyr 220	AGCCG 643	ີ : ວ	YrPro 180	u	snGln 160	ന— 46	roGln 140	GCACT 403	141hr 120	HIIII HATACC 343	spThr 100	CTCCA 283	hrPro 80	CAACC 223	laThr 60	AAAGC 163	lnSer 40	CAGTGCT 103	erAla 20		

밁

δ 닭 ર્ 밁 र्

음 성 음

중 유

ર્શ

밁

```
1484
                                                                                                                                                                                                                                                                              1604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1124
                                                                                                                                                                                                   1664
                                                                                                                                                                                                                                                                                                                                                         1544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1004
                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                521
                                                                                                                                                                                                                                                                                                                                                                                           501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 824
      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                             GlyProArgGlySerArgGlyAsnProSerGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                     GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                      AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                                                                          GACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGC
                                                                                                                                                                                                                                                                                              AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                       GGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCCAGGAGGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ANAGTETECETTGETEGGAAGAAGECTECAATGAACAGTATGEGGGGTGGTETGECACEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ly8ValSerLeuAlaArgLy8Ly8ProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TACCTGGACAAGGAAACAGGAAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TyrLeuAspLysGluThrGlyLysFroLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AspGluGlyProAspLeuAspLeuGlyProProValAsspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCAGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATG
                                                                                                                     1783
                                                                                                                                                                                                                                                                                                                                                       1603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1003
  620
                                        1843
                                                                              600
                                                                                                                                                         580
                                                                                                                                                                                                 1723
                                                                                                                                                                                                                                      560
                                                                                                                                                                                                                                                                            1663
                                                                                                                                                                                                                                                                                                                                                                                                                               1543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            380
                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                           520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              260
```

```
ABN97274;
                        ABN97274
                                                                          1964
                                                                                                                          1904
                                                                                                                                                                 1844
                                                                                                641
                                                                                                                                                621
                                                                                       LysMetAspLysG1yG1uHisArgG1nG1uArgArgAspArgProTyr
                                                                                                                                       ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                        standard;
                                                                                                                                                                         GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAGGAGGAGGTGGCCCTGGGGGG 1903
                        DNA;
                        2390
                        ₽P
                                                                                                656
                                                                                                                           1963
                                                                                                                                                 640
```

문 δ 밁 S

Gene; liver cancer; ds; hepatocellular carcinoma; hepatotropic; metastatic liver tumour; cytostatic; expression profile; disease state; disease progression; drug toxicity; drug efficacy; drug metabolism. WO200229103-A2. Homo sapiens. 11-APR-2002

Gene #3772 used 13-AUG-2002

diagnose

liver cancer

(first entry) ç

02-OCT-2001; 2001WO-US030589

02-OCT-2000; 2000US-0237054P

(GENE-) GENE LOGIC

Horne 'n Alvares C, Peres-Da-Silva s, Vockley JG;

WPI; 2002-426119/45.

Diagnosing and detecting the progression of liver cancer, hepatocellular carcinoma or metastatic liver tumor in a patient, involves detecting the level of expression of two or more genes in a liver tissue sample.

Claim ۳. SEQ ID NO 3772; 298pp; English.

RRSULT 5
ARMS97575
ARMS97757
ARMS9787
XX ARMS9
XX ARMS9
XX ARMS9
XX ARMS9
XX Gene
XX Gene
XX Gene
XX Gene
XX Gene
XX Homo
XX H CC The invention relates to a novel method for diagnosing and detecting the progression of liver cancer, hepatocellular carcinoma or metastatic liver ctumour in a patient, and differentiating metastatic liver cancer from the patocellular carcinoma in a patient, involving detecting the level of comparation of two or more genes represented in ABN9353-ABN97455 in a curious sample. The method of the invention has hepatotropic, and converted activity. The method is useful for diagnosing and detecting the progression of liver cancer, hepatocellular carcinoma and metastatic curious arian a patient. The method is useful for identifying compression profiles which serve as useful diagnostic markers as well as compression profiles which serve as useful diagnostic markers as well as compression profiles which serve as useful diagnostic markers as well as compression profiles which serve as useful diagnostic markers as well as compression profiles which serve as useful diagnostic markers as well as compression profiles which serve as useful disease states, disease progression, compression that can be used to monitor disease states, disease progression, compression patient did not form part of the printed specification, but was contained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences

음 중

문 ક

밁 S 문 र् 밁

δ 뭐 밁

δ

ર્શ

문

5 밁 र् 밁 S 뭐

Sequence 2390 BP; 645 A; 589 Ç 668 G; 488 T; 0 U; 0 Other

DB:	Query Match:	Best Local Similarity:	Percent Similarity:	Score:	Pred. No.:	Alignment Scores:
o.	100.00%	100.00%	100.00%	3633.00	1.7e-116	
Gaps:	Indels:	Mismatches:	Conservative:	Matches:	Length:	-
0	•	0	0	656	2390	

```
US-10-791-017A-2 (1-656) x ABN97274 (1-2390)
                                                                                                                              301
                                                                                                                                                                                                                             261
                                                                                                                                                                                                                                                         764
                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                          704
                                                                                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                                                                             644
                                                                                                                                                                                                                                                                                                                                                                                                              584
                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
  GATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGACAAC
                 AspGluGlyProAspLeuAspLeuGlyProProValAsspProAspGluAspSerAspAsn
                                                                  ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                      GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGly
                                                                                                                                                      GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                        TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                                                                                                                                                                     ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                                                                                        GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                                                                                                                                                                           ATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                             MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ThrThrAlaThrValThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                       CCACCCCANACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                            GGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGCCTGCTTATCCAGCCTATGGGCAGCAGCAGCCACTGCACCTACAAGACCGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGGTATGGCACTGGTGCTTATGATACC
 1123
                                                  1063
                                                                                                      1003
                         360
                                                                                                                                                                                                                                                                                                                                                             703
                                                                                                                                                                                                                                                                                                                                                                                                             643
                                                                                                                                                                                                                                                                                                                                                                                                                                      200
                                                                                                                                                                                                                                                                                                                                                                                                                                                               583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  40
                                                                                                                                                       943
                                                                                                                                                                                                                                                         823
                                                                                                                                                                                                                                                                                 260
                                                                                                                                                                                                                                                                                                          763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       223
 RESULT 6
ADS16277
ID ADS1
XX
AC ADS1
XX
DT 18-N
XX
DT 18-N
XX
DE Huma
XX
KW hypo
                                                                                                                                                                      밁
                                                                                                                                                                                    8
                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
human; ss; gene; Ewing sarcoma; EWS; prostatic cancer; alopecia; acne; hypogonadism; androgen-resistance syndrome; testicular feminisation.
                                      Human cDNA encoding the Ewing sarcoma protein SeqID 1.
                                                               18-NOV-2004
                                                                                                                                                                                                                                                                                                                      1784
                                                                                                                                                                                                                                                                                                                                                                         1724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1304
                                                                                                                                                                                                                    1904
                                                                                                                                                                                                                                                                     1844
                                                                                                                                                                                                                                                                                                                                                                                                                          1664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1124
                                                                                                                                                                                                                                            621
                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                               581
                                                                                                                                                                                                                                                                                                                                                                                                 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SeralaileTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAapArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656
                                                                                                                                                                                                                                   ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                    GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                       GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                          AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA 1543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                        CGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGT 1843
                                                                                                                                                                                                                                                                                                                                      ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                          GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAGGTGGCCTCATGGAT 1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCT 1483
                                                               (first
                                                                                                                CDNA; 2390
```

1663

1723

640

1903

600

480

1363

1303

1243

용 5 음 성

유정

유왕

음 성 음

ક 밁 6 유 ş

유 g 5 원 유

5 밁 ঠ 밁 ঠ 밁 ð 밁 δ

5 밁

문

```
Query
DB:
                                밁
                                                         र्
                                                                                      8
                                                                                                            ई
                                                                                                                                     밁
                                                                                                                                                                  ð
                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                     Alignment :
Pred. No.:
                                                                                                                                                                                                                                                                                                                                               X8XEFFFXEXEXEXEXEXEXEXERXEFFX8X9S9S9S9S9S9S9S9S
                                                                                                                                                                                                    US-10-791-017A-2 (1-656) x ADS16277
                                                                                                                                                                                                                                                                                                                                                                 This invention relates to a novel modulators that alter the interaction CC between the Ewing sarcoma protein (EWS) and its nuclear receptor, as well CC as the screening method thereof. Specifically, it refers to determining CC and identifying a hormonal effect brought about by test compounds that CC modulate either the binding of EWS to the nuclear receptor or the ligand-compound that the compounds of EWS to the nuclear receptor or the ligand-compounds that the compounds the compounds the composition static and and referably they are androgen compositions that can diagnose and be used in the development compounds. This method provides reliable, sensitive, cc simple, inexpensive and rapid assessment of the hormonal effects of these compounds. This polynucleotide sequence is the cDNA encoding the two treat compounds. This polynucleotide sequence is the cDNA encoding the compounds.
                                                                                                                                                                                                                                                                                                                                            Sequence 2390 BP; 646 A; 589 C; 668 G; 487 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 7; SEQ ID NO 1; 30pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Determining the hormonal effects of substances, used to identify pharmaceuticals, e.g. for treatment of androgen receptor dysfunction, from modulating interaction between nuclear receptors and Ewing sarcoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-MAR-2003; 2003DE-01009280.
25-APR-2003; 2003US-0465692P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Obendorf M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-FEB-2004; 2004EP-00003422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EP1455190-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (SCHD)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2004-627861/61.
DB; ADS16278.
                                 164
                                                                                         104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens
     61
                                                          41
                                                                                                                  21
                                                                                                                                              44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SCHERING AG
                              TATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC
                                                                                      TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
  TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                              TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                      TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                              ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCCAGCAGGGGCTACAGTGCT
                                                                                                                                                         MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wolf S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /*tag= .a
/product= "Ewing sarcoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /*tag=
                                                                                                                                                                                                                                1.7e-116
3633.00
100.00%
100.00%
100.00%
                                                                                                                                                                                                    (1-2390)
                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                             Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein"
                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                              2390
656
0
0
                                                                                                                                                                                                                                                                                                                                            U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              497
  80
                                                                                      163
                                                                                                                40
                              223
                                                          60
                                                                                                                                            103
                                                                                                                                                                       20
  ∵ 5
                                                                   Ś
                                                                                                문
                                                                                                                         Ś
                                                                                                                                                        문
                                           밁
                                                                                                                                                                                 S
                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                    吊
                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                           1244
                                                                                                  1184
                                                                                                                                                         1124
                                                                                                                                                                                                                1064
                                                                                                                                                                                                                                                                       1004
                 421
                                                                      401
                                                                                                                              381
                                                                                                                                                                                    361
                                                                                                                                                                                                                                          341
                                                                                                                                                                                                                                                                                                  321
                                                                                                                                                                                                                                                                                                                             944
                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                     884
                                                                                                                                                                                                                                                                                                                                                                                                                281
                                                                                                                                                                                                                                                                                                                                                                                                                                             824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        81 ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                             AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn 360
                                                                                                                                                                                                                                                                                                                                            GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGlyGly 320
                                                                                                                                                                                                                                                                                                                                                                                                     GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                          TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle 400
                                                                                                                                                                         SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe 380
                                                                                                                                                                                                                                                                                   ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                          TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATC
                                                                                                                                                        AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTC 1183
                                                                                                                                                                                                                                                                      CGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTTGGTGGACCCATG
                                                                                                                                                                                                                                                                                                                            GGCAGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                    GAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGCAGCCAGTCACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCACTGCTACAGTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ThrThrAlaThrValThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                           1303
                                                                                                1243
                440
                                                                      420
                                                                                                                                                                                                                                                                    1063
                                                                                                                                                                                                                                                                                                                             1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              703
                                                                                                                                                                                                                                                                                                                                                                                    943
                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                          883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 283
```

```
ACN40903
ID ACN4
XX ACN4
XX ACN4
XX Tumo
XX Tumo
XX Tumo
XX Tumo
XX Tumo
XX Tumo
XX Gerv
XX Gerv
XX Colo
XX Colo
XX Gere
XX Gere
XX Gere
XX Gere
XX Homo
XX Gere
XX Homo
XX Gere
XX Ge
                                                                                                                                                                                                                                                                                                                                                                                Tumour-associated antigenic target; TAT; human; overexpression; c tumour; diagnosis; cell proliferative disorder; breast cancer; colorectal cancer; lung cancer; ovarian cancer; liver cancer; central nervous system cancer; bladder cancer; pancreatic cancer; cervical cancer; melanoma; leukaemia; hybridisation probe; chromosome identification; chromosome mapping; gene mapping;
                                                                                                                                                                                                                                                                                                                                                       gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACN40903 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tumour-associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACN40903
   02-OCT-2002; 2002US-0414971P
                                                                 29-SEP-2003; 2003WO-US028547.
                                                                                                                                                                                                                WO2004030615-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1304 CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                                                                                                                 варіепв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               461
                                                                                                                                                                                                                                                                                                                                                       therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTTGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAGAGGTGGCCTCATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first
                                                                                                                                                                                                                                                                                                                                                       cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antigenic target (TAT) cDNA DNA269830,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2390
                                                                                                                                                                                                                                                                                                                                                       gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO:5989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            500
```

문 á 음 중

밁 5 밁 5 밁 δ 밁 ક 닭 5

밁 8

```
Š
                                           (GETH )
2004-347921/32.
                                           GENENTECH INC.
```

New tumor-associated antigenic target polypeptides and nucleic acids, useful in preparing a medicament for treating or detecting a proliferative disorder, e.g. breast, lung, colorectal, ovarian or prostate cancer or tumor.

Claim 1; SEQ ID NO 5989; 7273pp; English

밁 8 밁 S 밁 δ

mammals. The invention also relates to nucleic acid and polypeptide
cequences at least 80% identical to the TAT nucleic acids and
polypeptides; expression vectors and host cells comprising a TAT nucleic
cacid; an antibody specific for a TAT polypeptide; a peptide or organic
complecule which binds to a TAT polypeptide; fusion proteins comprising a
carry polypeptide; and methods and compositions for the treatment or
call far polypeptide; and the stream or
cancer, antipodies, antagonists, binding molecules and compositions are useful
for diagnosing or treating a cell proliferative disorder associated with
increased TAT expression, particularly cancers such as breast cancer,
colorectal cancer, lung cancer, ovarian cancer, liver cancer, bladder
cancer, pancreatic cancer, cervical cancer, cancers of the central
nervous system, melanoma and leukaemia. TAT nucleic acids may further be
cused as hybridisation probes, in chromosome and gene mapping, in
chromosome identification and in gene therapy. The present sequence The invention relates to human tumour associated antigenic target (TAT) golypeptides, and their related nucleic acids. The TAT polypeptides are overexpressed in cancer tissues compared to normal tissues, and may thus serve as effective targets for the diagnosis and treatment of cancer in

Sequence 2390 BP; 645 A; 589 Ç 668 G; 488 T; 0 U; 0 Other;

```
Percent Similarity:
Best Local Similarity:
US-10-791-017A-2 (1-656) x ACN40903 (1-2390)
                          Query
                                                            No.
                          Match:
                1.7e-116
3633.00
100.00%
100.00%
100.00%
                                                  Length:
Matches:
                                 Conservative:
Mismatches:
                  Gaps:
                          Indels:
                 2390
656
0
```

Ś 문 문 á 吊 S 밁 8 밁 S Ş 밁 S 101 284 224 104 121 164 81 61 41 44 21 GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr TACACCGCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGACTACAGTGCT MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA TATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC 140 120 343 100 283 80 223 60 163 40 103 20 403

밁

```
1244
                                                                                                                                                                                                                                                                                                     1184
                                                                                                                                                                                                                                                                                                                                                                 1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1004
                                                                                                                                                                                                                                                                                                                                                                                                                               1064
                                                                                                                                         441
                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                     401
                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                  381
                                                                                                                                                                                                                                                                                                                                                                                                                                                             341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  404
                                                                                                          GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAsgArgGlyGlyPheProProArg
                                                               ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                        CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                          ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                      TACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCCA
                                                                                                                                                                                                                                                        TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                       PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                               AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTC
                                                                                                                                                                                                                                                                                                                                                                                   SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                              GATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ceceereeaareeccaececreeaeaeceaeereecricaaraaeccreereeaeccare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCAGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGTCTGGAGGATTTTCCGGACCAGGAGAAACCGGAGCATGAGTGGCCCTGATAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCC
                                                                                                                                                                          1363
                                                                                                                                                                                                                                     1303
                                                                                                                                                                                                                                                                                                   1243
                                                                                                                                                                                                                                                                                                                                                                 1183
                                                                                                                                                                                                                                                                                                                                                                                                                              1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1063
                  500
                                                 1483
                                                                            480
                                                                                                            1423
                                                                                                                                         460
                                                                                                                                                                                                       440
                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                  400
                                                                                                                                                                                                                                                                                                                                                                                               380
                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                463
```

ş 밁

중 유

중 유

8

음 성 음

र् 밁 밁 S 밁 ર્ 밁 S

र्

ঠ 문

ঠ 밁

문

The present invention relates to the isolation of novel cDNA sequences which encode human secreted proteins. The cDNA sequences have been

Claim 1;

Page 100; 391pp; English

중 유

ફ

뭐 중 유 ર્શ 밁 ঠ 吊

```
RESULT B

AAS62252/c

ID AAS622

XX AAS622

XX AAS622

XX HAMAN

XX HUMAN

XX HUMAN

XX HOMO S

XX 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      경 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                     Wong GG,
Gulukota
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human secreted protein; hyperproliferative disorder; autoimmune disorder; immune deficiency disorder; blood disorder; inflammatory disorder; infectious disorder; gene therapy; antimicrobial; hepatotropic; immunosuppressive; antirheumatic; ss.
                                                                                                                          New polynucleotides encoding secreted asthma, HIV and Crohn's disease.
                                                                                                                                                                                                    WPI; 2002-010900/01.
                                                                                                                                                                                                                                                                                                                                                                          06-APR-2000; 2000US-0195604P
                                                                                                                                                                                                                                                                                                                                                                                                                        29-MAR-2001; 2001WO-US010485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cDNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAS62262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAS62262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200177291-A2
                                                                                                                                                                                                                                                                                                                            (GEMY ) GENETICS INST INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1484 GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA 1543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               521
                                                                                                                                                                                                                                                Clark HF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGAGGACGTGGAGGACCTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAGGAAGAGGTGGCCTCATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  #49 encoding novel human secreted protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDNA;
                                                                                                                                                                                                                                                     됬
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
                                                                                                                                                                                                                                                                         Fechtel K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ₽₽
                                                                                                                                                                                                                                                                         Agostino
                                                                                                                                                 proteins
                                                                                                                                                                                                                                                                            Ĭ,
                                                                                                                                                      useful
                                                                                                                                                                                                                                                                            Howes
                                                                                                                                                                                                                                                                            SH,
                                                                                                                                                      for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 656
                                                                                                                                                 treating
                                                                                                                                                                                                                                                                            Resnick
                                                                                                                                                                                                                                                                            짇
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1783
```

```
Query
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-791-017A-2 (1-656) x AAS62262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           derived from a variety of human tissues. The invention also provides a method for producing proteins from these polynucleotide sequences. The proteins are useful for identifying compounds that modulate their activity and production, and the cell is also useful for identifying compounds that modulate expression of the polynucleotide sequences encoding the secreted proteins. The sequences of the invention are useful for treating diseases such as hyperproliferative disorders (e.g. cancer), immune deficiency disorders (e.g. severe combined immunodeficiency (SCID)), autoimmune disorders (e.g. multiple sclerosis), blood disorders (e.g. thrombocytopaenia), inflammatory disorders (e.g. arthritis) and infectious disorders (e.g. hepatitis). The polynucleotide sequences of the invention are also useful in gene therapy. AAS62214-AAS62838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  secreted proteins
                                                                                                                                                                                                                                                                                                                                                                                           1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1980
                                                     1561
                                                                                                                                                                                      1681
                                                                                                                                                                                                                                                        1741
                                                                                                                                                                                                                                                                                                                         1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2100 TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                                                                                                                                                                                                                                                                                      141
                    221
                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                          101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                       ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                         MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                             AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                                                                                                                                                                                                                       GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                                                                                                                                                                                                ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                     ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTAT
                                                                                                                                                                                        CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCC
                                                                                                                                                                                                           ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                                                                                                                        GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG
                                                                                                                                                                                                                                                                                                                          CAGCCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA
                                                                                                                      ATGCAGCCAGTCACTGCACCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP; 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.44e-115
3605.00
99.85%
99.85%
99.23%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (1-2176)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2176
655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0 Other;
                                                                                                                                                                                      1622
                                                                                                                                                                                                                                                        1682
                                                                                                                                                                                                                                                                                                                          1742
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2041
                                                    1502
                                                                                                                      1562
                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                         160
                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
   유
                          S
                                                                  문
                                                                                            5
                                                                                                                                    뭐
                                                                                                                                                            S
                                                                                                                                                                                                  닭
                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                        吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                      541
                                                                                                                                                                   541
                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                       501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     261
                                 581
                                                                   481
                                                                                                    561
                                                                                                                                                                                                                                       521
                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                          461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          441
     421
                                                                                          GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                           AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                           GlyProArgGlySerArgGlyAsnProSerGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                             GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                            ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                      ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TACCTGGACAAGGAAACAGGAAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCAGGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
     CGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGT
                                                                     GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAAGAGGTGGCCTCATGGAT
                                                                                                                                                                                                                                                                          GGACCCCGGGGTTCCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1442
                                                                       422
                                                                                                                                       482
                                                                                                                                                                        560
                                                                                                                                                                                                        542
                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                          602
                                                                                                                                                                                                                                                                                                         520
                                                                                                                                                                                                                                                                                                                                            662
                                                                                                                                                                                                                                                                                                                                                                                                            722
                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       280
```

밁

श्

음 성 밁 8 밁

밁 ঠ 밁 S 8

В ક 밁 ঠ 문 S 片 ş 밁 र्

```
RESULT 9
AB19383
ID 9383
ID 9383
ID 9383
ID 9383
ID 9383
ID 9383
ID 9088
AX AB19
XX MOUS
XX MOUS
XX MOUS
XX MUS
PN WO20
XX MUS
PF 18-M
XX (UYN
XX IS-M
PR 18-M
XX IS-M
PR WPI;
PT Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                       Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                         The present invention describes a method for examining ischaemic conditions, comprising measuring the expression levels of particular genes (1) in a test sample or determining the expression profile of a gene group in the sample comprising genes selected from (1). The method is useful for examining the ischaemic condition (e.g. compressive ischaemia, occlusive ischaemia or vasospastic ischaemia) by measuring expression levels of particular genes (ABI99202 to ABI99912, encoding the protein sequences in ABB57020 to ABI99202 to ABI99912, encoding the expression profile of a gene group comprising these genes. The expression levels or expression profiles produced by these genes are used as an indicator when screening for ischaemic condition-improving drugs or therapeutics for ischaemic diseases. ABI99913 and ABI99914 represent PCR primers for a mouse ischaemic condition related sequence, which are used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Examining the ischemic condition (e.g. occlusive ischemia) by measuring expression levels of particular genes defined in the specification or by determining the expression profile of a gene group comprising these
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200188188-A2
                                                                                                                                                      Sequence 2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ishikawa K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mouse; ischaemia; compressive ischaemia; occlusive ischaemia; vasospastic ischaemia; ischaemic condition; ischaemic disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-MAY-2001; 2001WO-JP004192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mouse ischaemic condition related cDNA sequence SEQ ID NO:288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABI99383;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABI99383 standard; cDNA;
                                                                                          Х
О
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UYNI-) UNIV NIHON SCHOOL JURIDICAL PERSON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2002-034733/04.
)B; ABB57126.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             641 LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Page 794-799; 2690pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGTGGCCGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyGlyArgGlyMetAspArgGlyGlyFheGlyGlyGlyArgArgGlyGlyFroGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000JP-00145977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Asai S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first
                                                                                                                                                      B₽;
2.04e-114
3571.50
99.24%
98.02%
98.31% .
                                                                                                                                                      587 A; 551 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Takahashi Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English.
                                                                                                                                                        638
Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                      G; 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nagata
                                                                                                                                                      Η.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'n
                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ishii
                                                                                                                                                      U; o
2188
643
8
                                                                                                                                                      Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             620
                                         밁
                                                                              á
                                                                                                                                                               á
                                                                                                                                                                                                                     맑
                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                               밁
                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BB
```

```
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-791-017A-2 (1-656) x ABI99383 (1-2188)
                                                                       321
                                                                                                          957
                                                                                                                                          301
                                                                                                                                                                                897
                                                                                                                                                                                                                                                     837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    537
                                                                                                                                                                                                                   281
                                                                                                                                                                                                                                                                                       261
                                                                                                                                                                                                                                                                                                                           777
                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                              717
                                                                                                                                                                                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaGlnGlnGlyTyrSerAla
AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
                                   ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                             GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                                                                                        TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                                                                                                                                                                                                                                                 ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                      GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ThrThrAlaThrValThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACGGGCAGACTGCATATGCAACTTCTTACGGACAGCCTCCCACTGGTTATAGTACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATGGAACCTATGGACAGCCTACTGATGTCAGCTATACTCAGGCTCAGACCACTGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                GGACAACAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCTACTAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTAGTTACGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAGCCGAGCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTGCCCCCCAGGCGTACAGCCAGCCTGTGCAGGGATATGGCACTGGGGCTTATGACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TACACCGCCCAGCCAACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                                                                                                          GGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGA
                                                                                                                                                                                GAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCTTGAGTGGCCCTGATAACCGG
                                                                                                                                                                                                                                                     TACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAG
                                                                                                                                                                                                                                                                                                                           CCGCCTCAGACTGGATCCTACAGCCAGGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGCAGCCAGTCACCGCACCTCCATCTTATCCTCCTACCAGCTACTCCTCTTCACAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCAGCCTAGGATATGGACAGAGTAACTACAGCTATCCCCAGGTACCTGGGAGCTACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATGGTAACAAGCCTGCTGAGACTAGCCAACCTCAATCTAGCACAGGGGGTTATAACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGCCTGCCTACCCCACCTATGGCCAGCAGCCAACAGCCCACCGCACCTACCAGACCACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps:
                                                                                                          1016
                                   1073
                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                       340
                                                                                                                                                                                956
                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                     896
                                                                                                                                                                                                                                                                                       280
                                                                                                                                                                                                                                                                                                                           836
                                                                                                                                                                                                                                                                                                                                                              260
                                                                                                                                                                                                                                                                                                                                                                                                776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        236
```

```
RESULT 10
AAS70647
ID AAS70
XX
AC AAS70
XX
AC 13-FE
XX
DT 13-FE
XX
DE DNA e
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                문
                                                                                                                                                                      ঠ
                                                                                                                                                                                                  밁
                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                        뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ર્
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
            DNA encoding
                                      13-FEB-2002
                                                                                           AAS70647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1074
                                                                                                                                                                                                    1914
                                                                                                                                                                                                                                                                                                           1794
                                                                                                                                                                                                                                                                                                                                                              1734
                                                                                                                                                                                                                                                                                                                                                                                                                  1674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         381
                                                                                                                                                                                                                                                                                                                                    581
                                                                                                                                                                                                                                                                                                                                                                                       561
                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTGCAATTTATGTGCAAGGATTAAATGACAATGTGACTCTGGATGATCTGGCAGACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                GGTGATCGTGGACGAGGTGGCCCTGGTGGCATGCGAGGAGGAAGAGGAGGACTCATGGAC
                                                                                                                                                                                                                                                                                                                                                                              GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                   AACCAGTGTAAGGCCCCTAAGCCCCGAGGGCTTCCTCCCGCCACCCTTTCCACCTCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                  AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProPly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACTGGCAGTGTCCCAATCCGGGCTGTGGAAACCAGAACTTCGCTTGGAGAACAGAATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAGTGTCTCTTGCCCGAAAGAAGCCTCCAATGAACAGCATGCGGGGAGGCATGCCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAACTGCAAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTTCAAGGAAGCAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TACCTGGATAAGGAGACAGGAAAGCCTAAAGGGGACGCCACAGTGTCCTATGAAGATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTTAAGCAGTGTGGGGTTGTCAAGATGAACAAGAGAACTGGACAACCCATGATCCATATC
                                                                                                                                                              LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656
                                                                                                                                                                                                                                                                                                           CGTGGTGGTCCTGGAGGAATGTTCAGAGGTGGCAGAGGTGGAGACAGAGGAGGCTTCCGA
                                                                                                                                                                                                                                                                                                                            ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGACAGAGGGGGCTTCCCTCCAAGA
                                                                                                                                                                                                                            ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly 640
                                                                                                                                                AAAATGGATAAAGGCGAGCACCGTCAGGAACGCAGAGACCGGCCCTAC 2021
            novel human diagnostic protein #6451
                                      (first entry)
                                                                                           CDNA;
                                                                                           2388
                                                                                                                                                                                                                                                                                  620
                                                                                                                                                                                                                                                                                                                                                                1793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1193
                                                                                                                                                                                                                                                                                                                                                                                                                   1733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1133
                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                         580
                                                                                                                                                                                                                                                                                                                                                                                                                                             560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
```

```
Human; chromosome mapping; gene mapping; gene therapy; forensic; food supplement; medical imaging; diagnostic; genetic disorder; ss.
```

11-OCT-2001

31-MAR-2000; 2000US-00540217. 23-AUG-2000; 2000US-00649167. 30-MAR-2001; 2001WO-US008631.

(HYSE-) HYSEQ INC.

RT, Liu C, Tang ĭ

2001-639362/73.

New isolated polynucleotide and encoded polypeptides, useful diagnostics, forensics, gene mapping, identification of mutat responsible for genetic disorders or other traits and to asse mutations assess

Claim 1; SEQ ID NO 6451; 103pp; English.

The invention relates to isolated polynucleotide (I) and polypeptide (II) consequences. (I) is useful as hybridisation probes, polymerase chain creaction (PCR) primers, oligomers, and for chromosome and gene mapping, and in recombinant production of (II). The polynucleotides are also used in diagnostics as expressed sequence tags for identifying expressed conditivity of (II) or to treat disease states involving (II). (II) is useful in gene therapy techniques to restore normal conjugation of (II) and its states involving (II). (II) is useful for generating antibodies against it, detecting or quantitating a polypeptide in tissue, as molecular weight markers and as a food conjugation of the synchesis (II) and (II) are useful in medical imaging of sites expressing (II). (II) are useful for treating disorders involving aberrant protein expression or biological activity. The conjugation of polypucled and polynucleotide sequences have applications in conjugations for genetic disorders or other traits to assess biodiversity and to produce other types of data and products dependent on DNA and camino acid sequences. AAS64197-AAS94564 represent novel human diagnostic coding sequences of the invention. Note: The sequence data for this patent did not appear in the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences

Sequence 2388 BP; 628 A; 599 C; 668 G; 493 ,; 0 U; 0 Other;

Percent Similarity:
Best Local Similarity:
Query Match: Alignment Scores: ŏ : 5.11e-113 3531.50 98.64% 98.34% 97.21% Length: Matches: Gaps: Conservative: Mismatches: Indels:

US-10-791-017A-2 (1-656) x AAS70647 (1-2388)

```
밁
                                                           δ
문
               Ś
                                                                                  밁
                                                                                                    S
                                          113
 173
                   39
                                                               21
                                                                                    53
                                                                                                   1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                         nSerTyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAl
 AAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGC
                                                                                    ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCT
   232
                       59
                                            172
                                                                 39
                                                                                     112
                                                                                                          20
```

S

음 성 문 ð 밁 ક

δ B ક 밁 중 음

```
1133
                                                                                                                                                                          1073
                                                                                                                                                                                                                             1013
                   1253
                                                                                                                                                                                                  338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   218
                                                                                                                                                                                                                                                                                953
                                                                                                                                                                                                                                                                                                        298
                                                                                                                                                                                                                                                                                                                                    893
                                                                                                                                                                                                                                                                                                                                                            278
                                                                                                                                                                                                                                                                                                                                                                                     833
                                                                                                                                                                                                                                                                                                                                                                                                             258
                                                                                                                                                                                                                                                                                                                                                                                                                                          773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         erSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProT
                               leHi8IleTyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrG
                                                                                   laAspPhePheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetI
                                                                                                                                    erAspAsnSerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuA
                                                                                                                                                                                       lyProMetAspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspS
                                                                                                                                                                                                                                        lyGlyGlyArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyG
                                                                                                                                                                                                                                                                                             spAsnArgGlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgG
                                                                                                                                                                                                                                                                                                                                                yrGlyGlnGluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProA
                                                                                                                                                                                                                                                                                                                                                                                     GCAGCAGCTACGGGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                   erSerSerTyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValT
                                                                                                                                                                                                                                                                                                                                                                                                                                                        hrSerTyrProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             hrGlnProThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    yrAsnGlnProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlyS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gProGlnAsp-GlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rGlyThrGlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrAr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AspThrThrAlaThrValThr-ThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCAACTGCCCCCAGGCATACACGCCAGGCCTGTCCAGGGGGTATGGCACTGGTGCTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  aThrTyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrTh
                TCCACATCTACCTGGACAAGGAAACAGGAAAAGCCCAAAAGGCGATGCCACAGTGTCCTATG
                                                                                                                     CTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGG
                                                                                                                                                                                                                                                                              ATAACCGGGGCAGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGG
                                                                                                                                                                                                                                                                                                                                  ATGGGCAGGAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                       CTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 erTyrProMetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACAACCAGCCCAGGCTAGGATATGGACAGAGTAACTACAGTTATCCCCCAGGTACCTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATACCACCACTACAGTCACCAACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rProThrAlaProGlnAlaTyrSer-GlnProValGln-GlyTyrGlyThrGlyAlaTyr
                                                                   CAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AACCGAGGATTGAAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGCACTCAGCCTGCTTATCCAGCCTATGGGCAGCAGCAGCAGCACCTTGCCCTACAAG
                                          418
                                                                                             398
                                                                                                                                                                                                358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  138
                1312
                                                                   1252
                                                                                                                     1192
                                                                                                                                                                                                                                                                              1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    238
                                                                                                                                                                                                                          1072
                                                                                                                                                                                                                                                    338
                                                                                                                                                                                                                                                                                                        318
                                                                                                                                                                                                                                                                                                                                                                                                               278
                                                                                                                                                                                                                                                                                                                                                                                                                                       832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98
                                                                                                                                                                                                                                                                                                                                  952
                                                                                                                                                                                                                                                                                                                                                                                    892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            79
RESULT 11

AAS62623/c

ID AAS626:

XX AAS626:

XX AC AAS626:

XX DE CDNA BE

XX Human |

XX Human |

XX Infect

KW inmune

KW inmune

KW inmune

XX Homo BE

XX WO2001

XX PN WO2001

XX PP WO2001

XX PP 29-MAR

XX PR 06-APR
                                                                                                                                                                                                                                                                                                                                                                                          음 성
                                                                                                                                                                                                                                                                                                                                             망
                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                          음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
```

```
1313
                                                                              1913
                                                                                                                                                                                                                                                                                                                   1733
                                                                                                                                                         1853
                                                                                                                                                                                                                                       1793
                                                                                                                                                                                                                                                                                                                                                                                               1673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1373
                                                                                                                  819
                                                                                                                                                                                                598
                                                                                                                                                                                                                                                                                                                                                        558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  518
                                       638
                                                                                                                                                                                                                                                                                                                                                                                                                                    538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  418
                                                                                                                                                                              lyPheArgGlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyGlyArgArgGlyGlyP 618
                                                                                                                                                                                                                                                          euMetAspArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACC 1612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                luAspProProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlyS
GACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                      lyProGlyLysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                              roGlyGlyProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyG 638
                                                                                                                                                         GCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCC
                                                                                                                                                                                                                                       TCATGGATCGTGGTGCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTG
                                                                                                                                                                                                                                                                                                                 CCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCC
                                                                                                                                                                                                                                                                                                                                        roProGlyGlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyL
                                                                                                                                                                                                                                                                                                                                                                                               CAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                    hrGluCysAsnGlnCysLysAlaProLysProGluGlyPheLeuProProPhoPhoProP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rgAlaGlyAspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  roProArgGlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisA 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       lyGlyProGlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheP 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCACCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                euProProArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProG 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      erLysLeuLysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyL 458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGA 1372
2028
                                    656
                                                                                                                                                                                                                                                                            598
                                                                                                                                                                                                                                                                                                                   1792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  538
                                                                                                                                                         1912
                                                                                                                                                                                                                                       1852
                                                                                                                                                                                                                                                                                                                                                        578
                                                                                                                                                                                                                                                                                                                                                                                               1732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1432
                                                                                1972
```

AAS62623 standard; CDNA; 2273 ₽P

AAS62623;

14-FEB-2002 (first entry)

cDNA sequence #410 encoding novel human secreted protein

Human secreted protein; hyperproliferative disorder; autoimmune disorder; immune deficiency disorder; blood disorder; inflammatory disorder; infectious disorder; gene therapy; antimicrobial; hepatotropic; immunosuppressive; antirheumatic; ss.

WO200177291-A2

중 유

ঠ 뭐 ঠ 🖁 ঠ

8 8 8 8

음 중 음

중 유

5 B र् 밁 ঠ 밁

18-OCT-2001

29-MAR-2001; 2001WO-US010485

06-APR-2000; 2000US-0195604P

÷

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-791-017A-2 (1-656) x AAS62623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    derived from a variety of human tissues. The invention also provides a method for producing proteins from these polynucleotide sequences. The proteins are useful for identifying compounds that modulate their activity and production, and the cell is also useful for identifying compounds that modulate expression of the polynucleotide sequences encoding the secreted proteins. The sequences of the invention are useful for treating diseases such as hyperproliferative disorders (e.g. cancer), immune deficiency disorders (e.g. severe combined immunodeficiency (SCID)), autoimmune disorders (e.g. multiple sclerosis), blood disorders (e.g. thrombocytopaenia), inflammatory disorders (e.g. arthritis) and infectious disorders (e.g. hepatitis). The polynucleotide sequences of the invention are also useful in gene therapy. AAS62214-AAS62838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New polynucleotides encoding secreted proteins useful asthma, HIV and Crohn's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 291; 391pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 2273 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GEMY ) GENETICS INST
                                                                                                                                                                                                                                                                               2083
                                                                                                                                                                                                                                                                                                                                                2143
                                                                                                                                                                                                                                                                                                                                                                                                              2203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2263
                  1843
                                                                                                                                                                                102
                                                                                                                                                                                                                                               82
                                                                                                                                                                                                                                                                                                               62
                                                                                                                                                                                                                                                                                                                                                                              42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N
                                                                                                                                                                                                                                                                                                                                                                                                             ζ,
                                                                                                                                                                                                                                                                                                                                                GGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTAT
                                               GlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGlnPro 161
                                                                                                    ProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGlnAsp
                                                                                                                                                                  ThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThrGln
                                                                                                                                                                                                                                                                                                  GlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrProThr
                                                                                                                                                                                                                                                                                                                                                                      GlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThrTyr
                                                                                                                                                 ACTGCTACAGTCACCACCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAG
                                                                                                                                                                                                                GCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACC
                                                                                                                                                                                                                                   AlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThrThr
                                                                                                                                                                                                                                                                                 GGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACT 202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Clark HF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       invention relates to the isolation of novel cDNA sequences human secreted proteins. The cDNA sequences have been
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2.26e-111
3483.00
97.10%
97.10%
95.87%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ű
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ζ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (1-2273)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             562 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Agostino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Howes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ς,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2273
636
0
1
18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Resnick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       묎
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        e.g.
                                                                                                                                                                                                                1964
                                                                                                                                                                                                                                                                                                                                                                                                                2144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2204
                                                                                                                                                                                121
                                                                                                                                                                                                                                                 101
                                                                                                                                                                                                                                                                                                                                                2084
                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                 18
                                                                                   1844
                                                                                                                      중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                र्ठ
                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
δ
                                밁
                                                         S
                                                                                             멂
                                                                                                                                                                                          Ś
                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                      . 5
                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1783
                                                                                                                                                                                                                                                                                                1006
                                                                                                                                                                                                                                                                                                                                                                 1066
                                                                                                                                                                                                                                                                                                                                                                                                                               1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        162
                                                                                                                                                                                                                                                                                                                                422
                                                                                                                                                                                                                                                                                                                                                                                               402
                                                                                                                                                                                                                                                                                                                                                                                                                                                              382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         182
                                                                502
                                                                                                                                  482
                                                                                                                                                                                                 462
                                                                                                                                                                                                                                946
                                                                                                                                                                                                                                                                442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSerTyr
                                                                                                                                                                                   GluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                LysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIleTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLy8ProGlyGlyProMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnProThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrProMet
                                                    ProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGlyAsp
                                                                                                                      GlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArgGly
                                                                                                                                                                                                                                                    ValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProProArg
                                                                                                                                                                                                                                                                                                  ACTGCCAAGGCTGCCGTGGAATGGTTTGTTGGGAAAGATTTTCAAGGGAGCAAACTTAAA
                                                                                                                                                                                                                                                                                                                   ThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeuLys
                                                                                                                                                                                                                                                                                                                                                                                     LeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhePhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGlyArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyrGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGCCAGTCACTGCACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACT
 TrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCysAsn
                                                                                                  GGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGA
                                                                                                                                                                  GAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCCAGGAGGTCCTGGG
                                                                                                                                                                                                                                 GTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCCACCCCGT
                                                                                                                                                                                                                                                                                                                                                                 GCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGTGGAATGGGC---GCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGCAGCAGAGTTCATTCCGACAGGACCACCCCCAGTAGCATGGGTGTTTATGGGCAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCCAGGTACCTGGGAGCTACCCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                               GGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCCATGATCCACATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1604
                                                                                                                                                                                                                                                                                                                                                                  1007
                                                                                                                                                                                                                                                                                                                                                                                                                                 1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1724
     541
                                                                                                    767
                                                                                                                                                                    827
                                                                                                                                                                                                   481
                                                                                                                                                                                                                                   887
                                                                                                                                                                                                                                                                   461
                                                                                                                                                                                                                                                                                                   947
                                                                                                                                                                                                                                                                                                                                441
                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                     707
```

र् 밁 S 밁 ð 밁 5 밁 ঠ 밁 S 밁 δ 밁 Ś

밁

/number= 17		PT PT	/*tag= i	FT.
29153309 /*tag= ag	exon	2.1 2.1	exon 490676	F F
/number= 16		1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.		1 F.
28552914	intron		intron 430 489	F F
/*tag= ae /number= 16		ਦਾ ਦ	exon 306429 /*tag= g	P P T
/number= 15 26022854	exon	PT PT	/rumber= 3	F) 1.
25422601 /*tag= ad	intron	EL EL	ωн	111
/*tag= ac /number= 15	1	17 T		r r
	exon	FT	/*tag= d /number= 2	ы н Н Н
23842443 /*tag= ab	intron	E.L.	intron 134. 193	14 H
/*cag= aa /number= 14		E.T.] = :
Νi	exon	. FT	/number	7 F
/*tag= z /number= 13		FT	intron 3896 /*tag= b	e i
. 73	intron	FT		F 1
20382160 /*tag= y	exon	E.L.	/*tag= a	PT.
/number= 12		1.4 1.4	Loca	9 P i
	intron	FI	Homo sapiens.	S X
/*tag= w		FT	numan chromosome 22; ss.	X Ş
/number= 11 18481977	exon	human chromosome 11;	primitive peripheral neuroectodermal tumour;	.
/*tag= v		Ewing sarcoma; Ews gene;	chromosomal translocation; chimeric; chimaeric;	\$ \$
/number= 11 1788 1847	intron	Li.d.	Human Ews gene (genomic DNA).	X D
16691787 /*tag= u	exon	FT	1-1994	×
/number= 10		FT	R-2003 (revise	33
16091668	intron	FIT	AAQ50646;	ă ă
/*tag= 8		PT PT	AAQ50646 standard; DNA; 3309 BP.	Χij
: . 7	exon	FT	RESULT 12 AAQ50646	AAQS
15161575 /*tag= r	intron	AICGGCCCIAC 353 FT		Ę
/*tag= q /number= 9	-	, o	** MeCABDURGCOCCOCCARTINET COCCOCCARTINET COCCARTINET COCCOCCARTINET COCCOCCARTINET COCCARTINET COC	? 5
/number= 8 14781515	exon	SAGGANGACCIGGAAAA 398 FT		? {
1418. 1477 /*tag= p	intron	5 64	AT CONTRACTOR OF A CONTRACTOR	3 5
/number= 8				? {
12371417	exon			子 :
/*tag= n		621	602 GlyArqGlyMetAspArqGlyGlyPheGlyGlyG	ş
/number= 7 11771236	intron	518	577 GGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGT	문
9651176 /*tag= m	exon	601	582 GlyGlyProGlyGlymerpheArgGlyGlyArgGlyGlyApArgGlyGlyPheArgGly	ş
/*tag= 1 /number= 6		578	637 GATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAGGGAAGAGGTGGCCTCATGGATCGT	망
/number= 6 905964	intron	581	562 AspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAspArg	ફ
737904 /*tag= k	exon	GGT 638 FT	646 CAGTGT	망
/number= 5		561	542 GlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGlyGly	8
/11uiiiDer= 5 677736	intron	ACTTCGCCTGGAGAACAGAGTGCAAC 647	706 TGGCAGTGTCCCAATCCGGGTTGTGGAAAACCAGAACTTCGCCTGGAGAACAGAGTGCAAC	뭥
	•			

, B 8	유 성	당 <i>원</i>	B 8	B 8	유 성	DB:	Pred. No Score: Percent Best Loo	SQ Aliq	1888	38888	8 2 2 2 2	XPPP	X R R X	PP	X R X	# X	g X	N X G	X P P	FT
65 AlaTyrAlaThrSerTyrGlyGlnDroProThr	45 GlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThrTyrGlyGlnThr 64	34	25 ProThrGlnGlyTyrAlaglnThrThr	18TyrSerAlaTyrThrAlaGln 24 [5 AspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGly	2 -791-017A-2 (1-656) x AAQ50646 (1-	No.: 1.71e-105 Length: : 3315.00 Matches: clocal Similarity: 68.49% Conservative: Local Similarity: 68.49% Mismatches: Match: 91.25% Indels:	SQ Sequence 3309 BP; 822 A; 775 C; 857 G; 855 T; 0 U; 0 Other;	combination of the Ews cDNA sequence (Fig 6, AAQ50643) and the vidual intron sequences with their intron-exon junctions (Fig 12) ated on 25-MAR-2003 to correct PN field.)	different rusion products which could be formed by rusing exons from the two genes, as happens after specific chromosomal translocations, can be predicted (see AAQ50671-Q50678). The sequences at fusion junctions of other observed translocations are given in AAQ50679-Q50683). NOTE: the 1309 residue seemence AAQ50666 does not appear in the specification; it	French. In Ews gene and the Hum-Fli-1 gen AAQ50662, respectively). The	acid of EWS gene and its chromosomal trans-locatic c., for diagnosis and trea	WPI; 1993-386580/48. P-PSDB; AAR44555.	Aurias A, Delattre O, Desmaze C, Melot T, Peter M, Plougastel B; Thomas G, Zucman J;	(CNRS) CNRS CENT NAT RECH SCI.		19-MAY-1993; 93WO-FR000494.	WO9323549-A2. 25-NOV-1993.	polyA_signal 32893294 /*tag= ai	polyA_signal 31023107 /*tag= ah
• •					· · · · · · · · · · · · · · · · · · ·	·	<u> </u>	· · · ·					<u></u>				:			
	S B 7	S B :	O B :	8 B 1	S B &	} B	S & S	g 4	? 문 !	S & S) bb Q	gb Qy	g 49	? 문	Q	Дb	Q	유 성	В	\$
							225 SerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyrProProGlnThr 244	CAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGT	TITTITTTCTCCTTCCTCTCTCTTCAGCTATTCCTCACACAGCCGACTAGTTATGAT	183 INITALEFOR COSELLY FROM LOTTE 133	Tyriglysinserasniyrseriyrrosinvalrioglyseriyrrrowetsinroval	ProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGlnProSerLeuGly	696 AATGCGTCAGTTTTAATTTTATTTATTTCTCCTCTTAGACCGCAGGATGGAACAAG 755	CCAGCCTATGGGCAGCAGCAGCAGCACCTGCACCTACA	125 ProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThr	576 GTCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTAT 635		85 AlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThrThrThrAlaThr 104	456 GGGTGAAATCTGATGCAGCTCCCCTTTGGTCTAGGTTATACTACTCCAACTGCCCCCCAG 515	76Thribrerothralaerocin 84

중 유

용

ક

뫄 श् В ð

밁

```
2256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2076
                                                                                                                                                                                                                2436
                                                                                                                                                                                                                                                                                                                                                                                  2316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1836
                                             2556 CATGAGTGTCCCCTCAACTGCTTTCGCCCTGCTATTCTCACCTTAGGTGGTGATCGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           432
565 ArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAspArgGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             365
                                                                                                                                                                 AlaProLysProGluGlyPheLeuProProProPheProProPro-------
                                                                                                                                                                                                                                                                                           CCCAATCCGTATGTACTTGTCTGGGAAAATTGATACCCTGATTTCTGCTGTGATGTAATT
                                                                                                                                                                                                                                                                                                                                         ProAgnPro----
                                                                                                                                                                                                                                                                                                                                                                             TCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAGACTGGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                         SerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGlyAspTrpGlnCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArgGlyProArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGTTTCTTGTTGTTGTTGTTAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCATGCCACCACCACTCCGTGGAGGTACTTTTACTGAGCTCCTATGTTGCATTAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCCCGTGAGGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProProArgGluGlyArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGTTCTGTTGTTCCAGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspProProThrAlaLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCTTTGTCTAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyValValLy8-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhePheLysGlnCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTGTCTCTGAAAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATCTTGATCTAGGTAAGTTGAATTCCTAGTTGTGCCTTCCATATAATTCTCCTGTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATAGATAGTGATATTTTATATGATCTTTCCTGGTTGGCAGGACCCATGGATGAAGGACCA
                                                                                                                            GCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCGGGTAGGTGCAGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTGCCGTGGAATGGTTTGATGGTGAGATGTACTCACTGGCATTCTTAATCTAGTAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AlaAlaValGluTrpPheAsp-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGGTTGTTAAGGTCAGTAAAAGCATAACCAGGTCATCTGGCTCATGCCTAACTATGCTA 1835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ------MetAgnLysArgThrGlyGlnProMetIleHisIleTyrLeuAspLys
                                                                                                                                                                                                                                              -GlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCysAsnGlnCysLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -GlyProProValAspProAspGluAspSerAspAsnSerAlaIleTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ----GlyLysAspPheGlnGlySerLysLeuLysValSerLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -GlyProGlyGlyProGlyGlyProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyProMetAspGluGlyPro
                                                                             -GlyGlyAspArgGly
                                                                                                                            2555
                                                                                                                                                                                                                                                                                              2435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1715
                                           2615
                                                                                                                                                                                                              2495
                                                                                                                                                                                                                                                       544
                                                                                                                                                                                                                                                                                                                                                                               2375
                                                                                                                                                                                                                                                                                                                                                                                                                                                             2315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1595
                                                                                   564
                                                                                                                                                                     559
                                                                                                                                                                                                                                                                                                                                       527
                                                                                                                                                                                                                                                                                                                                                                                                                      524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            348
```

밁 ঠ g S 밁 S

ঠ

밁

밁

밁 ঠ 음 성

밁 8 문 र्

Alignment Scores:

Sequence 1988

BP; 519 A;

504 C;

584 G;

381 T; 0 U; 0 Other;

र्

문 ş 밁 Ş 밁 Ş 밁 ş

```
RESULT 13
ADA53506
ID ADA53
XX ADA53
XX ADA53
XX ADA53
XX ADA53
XX ADA53
XX Cytos
Cytos
CX Gene
XX Gene
XX Gene
XX Infla
XX Infl

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                The present invention relates to novel human secretory or membrane proteins (ADA54072-ADA55710) and their coding sequences (ADA52433-ADA54071). The coding sequences are useful in the gene therapy of diseases caused by abnormalities of the proteins, e.g. cancer, inflammatory diseases, osteoporosis or neurological disease.
                                                                                                                                                                                                                                                                       New polynucleotides encoding full-length polypeptides, e.g. secretory and/or membrane proteins, useful for developing medicines for diseases which the gene is involved, or as target molecules for gene therapy.
                                                                                                                                                                                                                          Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-SEP-2001; 2001JP-00328381.
24-JAN-2002; 2002US-0350435P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EP1293569-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cytostatic; Anti-inflammatory; Osteopathic; Neuroprotective; Noc Gene Therapy; human; secretory protein; membrane proteins; cance inflammatory disease; osteoporosis; neurological disease; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human coding sequence, SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADA53506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yamamoto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Isogai T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-MAR-2002; 2002EP-00006586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADA53506;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (HELI-) HELIX RES INST. (REAS-) RES ASSOC BIOTECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2736
                                                                                                                                                                                                                                                                                                                                                                                   2003-395539/38.
DB; ADA55145.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                C, Sugiyama T,
J, Isono Y,
Yoshikawa T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArgGlyGlyArgGly
                                                                                                                                                                                                                          SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 2951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGlyLysMetAspLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MetAspArgGlyGlyPheGlyGlyArgArgGlyGlyProGlyGlyProProGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGAGGTGGCCCTGGTGGCATGCGGGGAGGAGGAGGTGGCCTCATGGATCGTGGTCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TAAGTGCTGGTGAAAAGCAGCTGTGGGCCTCTAACCGAAGGGCCCTCTTTACCTTGCAGA 2915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGAAAAATGGATAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCCGTGGTGGCCCGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                       NO 1074;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Otsuki T, Wakamatsu A, Sato H,
Hio Y, Otsuka K, Nagai K, Irie
Otsuka M, Nagahari K, Masuho Y;
                                                                                                                                                                                                                 205pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ID 1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВP
                                                                                                                                                                                                                    English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ishii S;
R, Tamechika
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nootropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               H
                                                                                                                                                                                                                                                                                                      in
```

301 GlyargGlyargGlyclypheaspargGlyGlymetserargGlyGlyargGly 	281 GluserglyglypheserglyproglygluaenargserMetserglyproaepaearg 30 	261 TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln 28	Qy 241 ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer 260	Qy 221 GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr 240	Qy 201 ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr 220	Qy 181 MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro 200	Qy 161 ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro 180 Db 416 416	Qy 141 AspG1yAsnLysProThrG1uThrSerG1nProG1nSerSerThrG1yG1yTyzAsnG1n 160 Db 416 416	121 GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln 14	Qy 101 ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr 120	Oy 81 ThralaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr 100	Oy 61 TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro 80	QY 41 TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr 60	Qy 21 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer 40	QY 1 MetalaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla 20)1-017A-2 (1-656) x ADA53506 (1-1988)	Percent Similarity: 91.31% Conservative: 0 Best Local Similarity: 91.31% Mismatches: 1 Query Match: 90.20% Indels: 56 DB: 10 Gaps: 1	7.: 2.35e-104 Length: 3277.00 Matches:
RESULT 14 ADRO77446 ID ADRO7446 standard; cDNA; 2026 BP. XX AC ADR07446;	Qy 641 LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656	Qy 621 ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly 640	Db 1644 GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAGGAAGACGAAGGTGGCCCTGGGGGG 1703	581 ATGGIYGIYFIOGIYGIYMECFARANIGGIYGIYATGGIYYAYABDATGGIYGIYGIYMECFARANIGGITGGCTGGTGGAGACAGAGGTGGCTTCCGT	561 GJYARBARGGIYARGGIYGJYBERGARGGIYGJYARGGIYGJYLHENDECABD	1464 AACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGT	1404 GACTGCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGC				1164 AAAGTCTCCCTTGCTCGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCC 1461 AAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCC	CY 421 FEGULEA LAND BALLANTA VALUE DE LES BOUY Y SANDE LEGIOL Y SOLO Y SOLO Y SANDE LEGIOL Y SOLO Y	401 TyrleuAspLySGLUTARGLYLYSSFTOLYSGLYASBALAIDRYALSSTTYTGLIASBFTO	381 FIRELYBULICYBULY VALVALLYBRECABILLYBALGITETYCHIELICBELLELELEL	361 SELAIGIETY FAIGHNEY PERMEMBERS FOR THE CONSTRUCTION OF THE CON	864 GATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCAAGATGAAGACTCTGACAAC	Db 804 CGCGGTGGAATGGGCAGCGCTGGAGAGCGGAGGTGGCTTCAATAAGCCTGGTGGACCCATG 863 Qy 341 AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn 360	Oy 321 ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysBroGlyGlyProMet 340

```
Percent Similarity:
Best Local Similarity:
Query Match:
                  S
                                               문
                                                                        र्श
                                                                                                                                                                                                                          Alignment
                                                                                                        US-10-791-017A-2 (1-656) x ADR07446 (1-2026)
                                                                                                                                                                                                                                                                             This invention relates to novel, isolated full length human cDNA CC molecules and the encoded proteins thereof. Specifically, it refers to CC molecules and the encoded proteins thereof. Specifically, it refers to CC cDNA clones obtained by an oligo-capping method, where none of these CC clones are identical to any known human mRNAs. The present invention CC describes an immunoassay to identify agonists and antagonists, as well as CC antibodies, antisense molecules and siRNAs that can all be used to bind CC to and modulate expression of the cDNA molecules. As such, these CC the various diseases or morbid states. In particular, they are useful in CC gene therapy for treating osteoporosis, neurological disease, Altheimer's CC disease, Parkinson's disease, dementia, short memory and various cancers, as well as for maintaining equilibrium of sense or motor function, and CC they exhibit osteopathic, neuroprotective, nootropic, antiparkinsonian, CC cytostatic and tranquiliser activities. This polynucleotide is a full CC cytostatic and tranquiliser activities. This polynucleotide is a full CC cytostatic and tranquiliser activities. This sequence is not control of the specification but can be obtained on CC CD-ROM from the Buropean Patent Office, Vienna Sub-office.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene; 88; human; oligo-capping method; diagnostic marker; geosteoporosis; neurological disease; Alzheimer's disease; Parkinson's disease; dementia; short memory; cancer; sense or motor function; emotional reaction; fear response; osteopathic; neuroprotective; nootropic; antiparkinsonian; ctranquiliser.
                                                                                                                                                                                                                                                         Sequence 2026 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New 1995 cDNA, useful Alzheimer's diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; SEQ ID NO 952; 2686pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Isogai T, Ya
Wakamatsu A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-FEB-2003; 2003JP-00102207.
09-MAY-2003; 2003JP-00131452.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Full length human cDNA useful for treating neurological disease Seg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-AUG-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EP1447413-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (REAS-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-FEB-2004; 2004EP-00003145
                                                                                                                                                                                                                            Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2004~583265/57.
DB; ADR09402.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                 38
                  21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RES ASSOC BIOTECHNOLOGY.
TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                              MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yamamoto J,
A, Ishii S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                       540 A;
                                                                                                                                      4.71e-102
3210.00
90.40%
89.94%
88.36%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   for treating osteoporosis, neurological diseases, Parkinson's diseases, dementia and various cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nishikawa T, ]
Nagai K, Irie
                                                                                                                                                                                                                                                      513 C;
                                                                                                                                                                                                                                                       590
                                                                                                                                                                              Length:
Matches:
Conservative:
                                                                                                                                                   Mismatches:
Indels:
                                                                                                                                    Gaps:
                                                                                                                                                                                                                                                       G; 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Isono Y,
e R;
                                                                                                                                                                                                                                                      7
                                                                                                                                                                                                                                                      0
                                                                                                                                    2026
590
11
52
                                                                                                                                                                                                                                                      U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sugiyama
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; panic;
cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Oteuki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       H
                40
                                               97
                                                                         20
                          S
                                                                                                                                             ঠ
                                                                                                                                                                                                                                       밁
   밁
                                                            밁
                                                                                   ঠ
                                                                                                                 뫄
                                                                                                                                                                            밁
                                                                                                                                                                                                      ş
                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
    1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41
                                                                                                                                                                               842
                                                                                                                                                                                                                                                                                                                                                            662
                              381
                                                            962
                                                                                         361
                                                                                                                      902
                                                                                                                                                  341
                                                                                                                                                                                                           321
                                                                                                                                                                                                                                        782
                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                 722
                                                                                                                                                                                                                                                                                                                           281
                                                                                                                                                                                                                                                                                                                                                                                      261
                                                                                                                                                                                                                                                                                                                                                                                                                     602
                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               86
 PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                              SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                      AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                                              GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGly
                                                                                                                                                                                                                                                                                                                  GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                                                                                                                                                                                             TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                                                                                                                                                                                                                                                                                                                                    ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                  ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TACACCGCCCAGCCCAACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC 157
                                                          AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTC
                                                                                                                      GATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAAC
                                                                                                                                                                               CGCGGTGGAATGGGCAGCGTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATG
                                                                                                                                                                                                                                                                                                 GAGTCTGGAGGATTTTCCGGACCAGGAGAACCCGGAGCATGAGTGGCCCTGATAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                     CCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCTACCCTCCTACC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TACTCTCAGCAGCCAGCAGCCACCTACAAGACCGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----AGTTATGATCAGAGCAGT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ----AGCTATTCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----AGCTAT
   1081
                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            140
                              400
                                                                                         380
                                                                                                                      961
                                                                                                                                                                               901
                                                                                                                                                                                                         340
                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                    320
                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                      280
                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                  260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               376
```

S

밁

8

```
RESULT 15
ACN37537
ID ACN37
XX ACN37
XX ACN37
XX TUMOU
DE TUMOU
XX TUMOU
XX TUMOU
XX COLOR
KW COLOR
KW CCETVI
KW CCE
                                                                                                                                                                            Tumour-associated antigenic target; TAT; human; overexpression; c tumour; diagnosis; cell proliferative disorder; breast cancer; colorectal cancer; lung cancer; ovarian cancer; liver cancer; central nervous system cancer; bladder cancer; pancreatic cancer; cervical cancer; melanoma; leukaemia; hybridisation probe;
                                                                                                                                          cervical cancer; melanoma; leukaemia; hybridisachromosome identification; chromosome mapping;
                                                                                                                                                                                                                                                                                                                                                                                                           Tumour-associated antigenic target (TAT) cDNA DNA323971, SEQ ID NO:490.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACN37537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACN37537 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TACCTGGACAAGGAAACAGGAAAAGCCCAAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCCAGAGATCGGCCCTAC 1849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProProPheProProPly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCTGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       쁌
                                                                                                                                                  gene mapping;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
```

S

문 S 밁 ঠ 밁 ð

밁

밁 5 닭 S 밁 ঠ 밁 Ş

```
P-PSDB;
                                                                                Wu TD,
                                                                                          02-OCT-2002; 2002US-0414971P
                                                                                               29-SEP-2003; 2003WO-US028547.
                                                                                                         WO2004030615-A2
                                                                           2004-347921/32.
                                                                         ABM80197
                                                                                     GENENTECH
                                                                                     INC.
```

New tumor-associated antigenic target polypeptides and nucleic acids, useful in preparing a medicament for treating or detecting a proliferative disorder, e.g. breast, lung, colorectal, ovarian or cancer or tumor.

Claim 1; SEQ ID NO 490; 7273pp; English.

The invention relates to human tumour-associated antigenic target (TAT) CC polypeptides, and their related nucleic acids. The TAT polypeptides are overexpressed in cancer tissues compared to normal tissues, and may thus serve as effective targets for the diagnosis and treatment of cancer in commandate. The invention also relates to nucleic acid and polypeptide sequences at least 80% identical to the TAT nucleic acid and polypeptide complete caid; an antibody specific for a TAT polypeptide; a peptide or organic complete which binds to a TAT polypeptide; fusion proteins comprising a complete and methods and compositions for the treatment or compositions of cancer in mammals. TAT polypeptides, nucleic acids and compositions for the treatment or compositions of cancer in mammals. TAT polypeptides, nucleic acids (antibodies, antagonists, binding molecules and compositions are useful concresed TAT expression, particularly cancers such as breast cancer, colorectal cancer, lung cancer, ovarian cancer, liver cancer, bladder concretal cancer, pancreatic cancer, cancers of the central cancer, pancreatic cancer, cervical cancer, and gene mapping, in chromosome identification and in gene therapy. The present sequence

Sequence 2177 BP; 602 A; 539 Ç 605 G; 431 T; 0 U; 0 Other;

```
Percent Similarity:
Best Local Similarity:
Query Match:
                                               Alignment Scores:
                                         М
::
4.96e-102
3210.00
93.14%
91.16%
88.36%
                Conservative: Mismatches:
        Indels:
                                        Length:
2177
598
13
45
2
```

US-10-791-017A-2 (1-656)

x ACN37537 (1-2177)

밁 S 밁 S 片 S

therapy;

gene; ss.

맑 8 닭 5 문 გ 밁 8 154 61 41 94 81 21 34 1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr TACAACACCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer TATGGAACCTATGGACAGCCCATTGATGTCAGCTATACCCAGGCTCAGACCACTGCAATC ATGGCATCCATGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCT

100

80 213 60 153 6 93

YLeuProPro 460 ::: TATGCCACCC 1413	441 LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro 460	н.
ySerLysLeu 440 agCAAACTT 1353	421 ProThralaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGly	н.
rGluAspPro 420 GAAGACTCA 1293	401 TyrleuasplysGluthrGlyLysProLysGlyAspAlaThrValSerTy 	н.
tileHiBile 400 ATCCACACC 1233	381 PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMet	E
uAlaAspPhe 380 	361 SeralaileTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLev 	£
pSerAspAsn 360 CTCTGACAAC 1113	341 AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAsp	16 ()
YG1yProMet 340 GGACCCATG 1053	321 ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAgnLygProGly	10 (1)
gGlyGlyGly 320 GGAGGAGGA 993	301 GlyargGlyargGlyGlyBheaspargGlyGlyMetSerargGlyGlyarg 	10 (1)
OAspAsnArg 300 GATAACTGG 933	281 GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyPro	
TyrGlyGln 280 TATGGGCAG 873	261 TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyVal	~
nSerSerSer 260 agcagcagc 813	241 ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGli 	
OThrSerTyr 240 CACTAGTTAC 753	221 GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProPro	• •
OSETSETTYT 220 AGCAGCTAT 693	201 ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnPro	
	181 MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSer	
ySerTyrPro 180 GAGCTACTCC 573	161 ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGly	, n
YTyrAsnGln 160 TACAACCAG 513	141 ABPGlyABRLyBProThrGluThrSerGlnProGlnSerSerThrGlyGly:::	
rArgProGln 140 AAGACTGCAG 453	121 GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThi 	
aTyrGlyThr 120 ATATGGCACT 393	101 ThrThralaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAle	4.5
TTATGATACC 333	274 ACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGC	

8 8 8 8 8 8 8

8 8 8 8

8 8 8 8

유 성 유

8 8 8 8 8 8

음 &

১ ৪ ১

8 8 8 8

₽ &	B &	B 8	B 8	B 성	B 8	B 8	B 8	용 성	g 49
641 1952	621 1893	601 1834	581 1774	561 1714	541 1654	521 1594	501 1534	481 1474	461 , 1414
1 LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656 	1 ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly	1 GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly	1 ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg 600	1 GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp 	1 ASNGlnCySLySAlaProLySProGluGlyPheLeuProProProPheProProProGly	1 AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys	1 GlyProArgGlySerArgGlyAsnProSerGlyGlyAsnValGlnHisArgAlaGly	1 G1yG1yProMetG1yArgMetG1yG1yArgG1yG1yAspArgG1yG1yPheProProArg	1 ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
	640 1951	620 1892	600 1833	580 1773	560 1713	540 1653	520 1593	500 1533	480 1473

Search completed: February 20, 2005, 23:09:57 Job time: 894.229 secs

This Page Blank (usptc)

```
Regult
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Command line parameters:

-MODEL-frame+ p2n.model -DEV=xlp
-MODEL-frame+ p2n.model -DEV=xlp
-MODEL-frame+ p2n.model -DEV=xlp
-Q-/Ggn2_1/USPTO_Bpool_p/US10791017/runat_17022005_125808_22107/app_query.fasta_1.1358
-DB=Issued_patents NA -QFMT=fastap -SUFFIX=p2n.rni -MINMATCH=0.1 -LOOPCL=0
-LOOPEXT=0 -UNITS=Dits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human#0.cdi
-LIST=45 -DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15
-MODE=LOCAL -OUTPMT=pto -NORM=ext -HEAPSIXE=500 -MINLEN=0 -MAXLEN=200000000
-USER-US10791017_@CGN_1_1_141_@runat_17022005_125808_22107 -NCPU=6 -ICPU=3
-NO_MMAP -LARGEQUERY -NEG_SCORE=0 -MAIT -DSPELOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPEXT=0.5 -FGAPOP=6
-PGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                               Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                  3633
3233
3178.5
3178.5
2826.5
                                                                                                                                                                                                                                                                              Score
                                                                                                            1420
273.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nucleic search,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Xgapop 10.0 , Ygapop 10.0 , Ygapop 6.0 , Fgapop 6.0 , Delop 6.0 , I
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Issued_Patents_NA:*

1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*

2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*

3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*

4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*

5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*

6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*
                                                                  100.0
89.0
87.5
87.5
77.8
39.1
35.1
26.4
                                                                                                                                                                                                                                                                         Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-791-017A-2
3633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       February 20, 2005, 22:00:21; Search time 291.042 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1202784 segs, 818138359 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MASTDYSTYSQAAAQQGYSA......GGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Copyright
      2371
6002
1785
1785
1783
2412
1939
35784
454
411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              using frame_plus_p2n model
                                                                                                                                                                                                                                                                              명
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xgapext
Ygapext
Fgapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Delext
    US-08-343-443B-1
US-09-949-016-5043
US-09-949-016-5043
US-09-949-016-5044
US-09-949-016-1954
US-09-949-016-16785
US-09-949-016-16785
US-09-949-016-16785
US-09-949-016-16785
US-09-949-016-16785
US-09-949-016-16785
US-09-949-016-66382
                                                                                                                                                                                                                                                                                                                                          SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (without alignments)
3688.116 Million cell updates/sec
Sequence 5044, Ap
Sequence 1954, Ap
Sequence 18, Appl
Sequence 322, Appl
Sequence 16785, A
Sequence 16786, A
Sequence 1657, Ap
Sequence 1657, Ap
Sequence 66382, A
                                                                                                                                                                    Sequence 1, Appli
Sequence 13696, A
Sequence 5043, Ap
Sequence 5044, Ap
                                                                                                                                                                                                                                                                         Description
```

O.	ი										ი		ი		a	Ω																
5	44	43	42	41	40	39	38	37	36	ω 5	ω A	ü	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
329	32	۰.	٥	329.5	.9	330	331	337.5	•	341.5	343	344	345	347	٠	•	353.5	•	•	368.5	•	•	•	٠	•	397.5	405	405	471	484	484	. 486
9.1				9.1		9.1			9.4	9.4	9.4	'n	Ġ	9.6	٠,	. 7	. 7	ė	_	-	10.1	σ	σ	σ	10.9	10.9	•	11.1	13.0	13.3	13.3	
2493	2493	3541	3349	3181	3171	6158	6200	4409	2824	4403765	4403765	2082	4411529	4411529	1931	1926	6109	2830	3600	3600	3600	3147	3147	3147	450	450	601	601	393	1684	954	1682
-	_	4.	4.	1	4.	4.	4.	4.	N	ω	w	4	w	ω	N	w	4	N	W	W	۲	w	ω	N	4.	w	4.	4.	4	4.	N	4
-08-458-819-	-07-977-434-	-16	US-09-169-768-13	-08-655	US-09-169-768-15	9-497-	US-09-795-061-3	US-09-331-347C-22	US-09-010-928B-3	US-09-103-840A-2	US-09-103-840A-2	US-09-818-780-67	US-09-103-840A-1	US-09-103-840A-1	US-09-130-114-2	US-09-249-585A-4	US-09-795-061-1	US-09-010-928B-1	US-09-024-429-5	US-08-863-010-5	US-08-537-002A-5	US-09-058-260-7	US-08-694-078-7	US-08-781-802-7	-854-133-	US-09-370-838-145	US-09-949-016-176664	US-09-949-016-176641	US-09-513-999C-12062	-09-919-039	-08-343-4	-09-220-132-8
5,	equence 5,	9,	13,	Sequence 1, Appli	15,	σ,	ω -	22	Sequence 3, Appli	N	е 2	67	بر	e	2	4	Sequence 1, Appli	ļ,	'n	5, Appl	'n	7,	7	7, A	145, Ap	Sequence 145, App	æ	Œ	e 120	e 323,	e 106,	Ф

ALIGNMENTS

US-08-343-443B-1

Sequence 1, Application US/08343443B
Patent No. 5968734
GENERAL INFORMATION:
APPLICANT: Delattre, Olivier
APPLICANT: Delattre, Olivier
APPLICANT: Delattre, Olivier
APPLICANT: Melot, Thomas
APPLICANT: Melot, Thomas
APPLICANT: Melot, Thomas
APPLICANT: Ploudgastel, Beatrice
APPLICANT: Ploudgastel, Beatrice
APPLICANT: Thomas, Gille
APPLICANT: Delattre, NUCLEIC ACID CORRESPONDING TO A GENE OF
TITLE OF INVENTION: NUCLEIC ACID CORRESPONDING TO A GENE OF
TITLE OF INVENTION: NUCLEIC ACID CORRESPONDING TO A GENE OF
TITLE OF INVENTION: TRANSLATIONS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS
TITLE OF INVENTION: TRANSLATIONS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS
TITLE OF INVENTION: TRANSLACATIONS
NUMBER OF SEQUENCES: 129
CORRESPONDENCE ADDRESS:
ADDRESSEE: Melser & Associates
STREET: 230 South Fifteenth Street
CITY: Philadelphia
STREET: 230 South Fifteenth Street
CITY: Philadelphia
STREET: 19102
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Ploppy disk
MEDIUM TYPE: PLOUS/MS-DOS
SOPTWARE: ABDIT 1.0 DOS text editor
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/343,443B
FILING DATE: 18-NOV-1994
CLASSIFICATION DATA:
APPLICATION DATA:

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                           S
              문
                                   á
                                                                  닭
                                                                                        र्
                                                                                                                        吊
                                                                                                                                              S
                                                                                                                                                                             밁
                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                          욙
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-791-017A-2 (1-656) x US-08-343-443B-1 (1-2371)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-343-443B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 19,763
REFERENCE/DOCKET NUMBER: 989.6:
TELECOMMUNICATION: INFORMATION:
TELEPHONE: 215-875-8383
TELEPAX: 215-875-8394
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
LENGTH: 2371 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 19-MAY-1993
PRIOR APPLICATION DATA:
APPLICATION UNMBER: FR 9:
FILING DATE: 20-MAY-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
0
::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: nucleic acid strandedness: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Weiser, Gerard J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear
                                      181
                                                                                                                        445
                                                                                                                                                   141
                                                                                                                                                                               385
                                                                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                                                                                               205
                                                                                                                                                                                                                                                                                                                                                                                                    145
              565
                                                                                             161
                                                                                                                                                                                                          121
                                                                                                                                                                                                                                    325
                                                                                                                                                                                                                                                                                          265
                                                                                                                                                                                                                                                                                                                    81
                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                              41
                                                                                                                                                                                                                                                                                                                                                                                                                                                           85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21
                              MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                           AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGin
                                                                                                                                                                                                                                                     .ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                                                                                                                                                                                                           ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                                                                                                                                               TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                       TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                   ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                          GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG
                                                                                                                                                                               CAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCAGCCACTGCACCTACAAGACCGCAG
                                                                                                                                                                                              GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                    ACCACTGCTACAGTCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCCAGCAGGGCTACAGTGCT
                                                                                                                                                                                                                                                                                            ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2371 base pairs ucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25..1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4.3e-186
3633.00
100.00%
100.00%
100.00%
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FR 92/06123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PCT/FR93/00494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6121P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0000
                                         200
                                                                                              180
                                                                                                                                                   160
                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                            324
                                                                                                                                                                                                                                                                                                                                               264
                                                                                                                                                                                                                                                                                                                                                                         80
                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      40
                                                                                                                          504
                                                                                                                                                                                444
                                                                                                                                                                                                          140
                                                                                                                                                                                                                                     384
                                                                                                                                                                                                                                                                                                                                                                                                    204
                                                                                                                                                                                                                                                                                                                                                                                                                                                           144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                    564
                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
S
                         밁
                                                  á
                                                                                밁
                                                                                                     Ş
                                                                                                                                     밁
                                                                                                                                                               Ş
                                                                                                                                                                                            밁
                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                  片
                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                       닭
                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                 맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                              1465
                                                                                                                                                                                                                                                    1405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1045
                                                                                                                                        1525
                                                                                                                                                                                                                                                                                                         1345
                                                                                                                                                                                                                                                                                                                                                              1285
                                                                                                                                                                                                                                                                                                                                                                                                                   1225
                            1645
                                                                                 1585
                                                                                                                                                                                                                                                                             461
                                                                                                                                                                                                                                                                                                                                  441
                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                             401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             341
                                                      541
                                                                                                             521
                                                                                                                                                                   501
                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
561 GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp 580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                                                                                                                                                                            GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                            AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly 560
                                                                                                                                                      GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly 520
                                                                                                                                                                                                             GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                     ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                         APAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCC
                                                                                                                                                                                                                                                                                                                          LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                     TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATG 1044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACGGGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                   AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                              GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                     CGTGAGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCT 1464
                                                                                                                                                                                                                                                                                                                                                                                                                    TACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTIGCAATTTATIGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCAGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                        GGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                1524
                                                                                                                                                                                                                                                                                                          1404
                                                                                                                                                                                                                                                                                                                                                                                                                      1284
                              1704
                                                                                    1644
                                                                                                                                         1584
                                                                                                                                                                                                                                                                                                                                                               1344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             684
                                                                                                              540
                                                                                                                                                                                                                          500
                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                     460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       744
```

•

Qy 41 TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr 60	1 MetAlaSerThrAepTyrSerThrTyrSerGlnAlaAlaGlnGlnGlyTyrSerAla 20	Pred. No.: 2.99e-164 Length: 6002 Pred. No.: 3233.00 Matches: 601 Percent Similarity: 93.60% Conservative: 13 Best Local Similarity: 91.62% Mismatches: 42 Query Match: 88.99% Indels: 2 DB: 4 Gaps: 0 US-10-701-017A-2 (1-656) x US-00-940-016-13606 (1-6002)	SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 13696 LENGTH: 6002 TYPE: DNA ORGANISM: Human US-09-949-016-13696	CURRENT FILING DATE: 2000-04-14 PRIOR APPLICATION NUMBER: 60/241,755 PRIOR FILING DATE: 2000-10-20 PRIOR APPLICATION NUMBER: 60/237,768 PRIOR FILING DATE: 2000-10-03 PRIOR APPLICATION NUMBER: 60/231,498 PRIOR FILING DATE: 2000-09-08 PRIOR FILING DATE: 2000-09-08 NUMBER OF SEO ID NOS: 207012	# Sequence 13696, Application US/09949016 # Patent No. 6812339 # GENERAL INFORMATION: # APPLICANT: VENTER, J. Craig et al. ## TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED ## TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF ## FILE REFERENCE: CL001307 ## CURRENT APPLICATION NUMBER: US/09/949,016	Db 1885 CCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAAGACCTGGA 1944 Qy 641 LysMetAspLysGlyGluHisArgGlmGluArgArgAspArgProTyr 656	1705 GGTGATCGTGGCAGAGGTGGC 581 ArgGlyGlyProGlyGlyMet
Qy 401 TyrLeuAspLysGluThrGlyLysFroLysGlyAspAlaThrValSerTyrGluAspPro 420	Qy 361 SeralaileTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe 380	Oy 321 ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet 340	Qy 281 GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg 300	Qy 241 ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer 260	Qy 201 ThrSerTyrAspGlnSerSerTyrSerGlnAsnThrTyrGlyGlnProSerSerTyr 220	Qy 161 ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro 180	Qy 101 ThrThrAlaThrValThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr 120

```
RESULT 3
US-09-949-016-5043
J Sequence 5043, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
           Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                           APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASS
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-30
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                    Score:
                                                                                                Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    음 중
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                             US-09-949-016-5043
                                                                                                                                        SOFTWARE: FASTSEQ
SEQ ID NO 5043
LENGTH: 1785
TYPE: DNA
ORGANISM: Human
                                                                                    М
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         461
                                                                                                                                                                                                  FastSEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATGGTGGTCCCGGTGGAATGTTCAGAGGTGGCTGTGGTAGAGACAGAAGTGGCTTCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGATCATGGCAGAGGTGGCCCTGGTGGCATGTGGGGAAGAAGAGGTGGCCTCATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAACGGATAAAGGCGAGCACTGTCAGGAGCGCAGAGATCAGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCCCGGA-CCTTTGATGTAACCAATGGGAGGAAGAAGAGGAGGACGTGAAGGACCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACAGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGACCCCAGGGTTCCCGAGGGAACACCTCTGGAGGAGGAAACGTCCAGCACCAAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGTGAGGGCAGAGGGATGCCACCACCACTCTGCGGAGGTCCAGGAAGGCCCAGGAAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGTGGCTG-GGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACAAGGTGGCCCTGGGGGG
                                                                                                                                                                                                 for Windows Version
             6.89e-162
3178.50
38.72%
88.72%
88.72%
87.49%
        Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                          ASSOCIATED
OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
문
                    5
                                                     뮍
                                                                              δ
                                                                                                              밁
                                                                                                                                                                      밁
                                                                                                                                                                                           δ
                                                                                                                                                                                                                             몽
                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-791-017A-2 (1-656) x US-09-949-016-5043 (1-1785)
                                                                                                                                                                                                                               814
                                                                                                                                                                                                                                                                                                                                             694
                                                                                                                                                                                                                                                                                                                                                                                                    634
                                                                                                                                                                                                                                                                                                                                                                                                                                                             574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            334
                       341
                                                                                 321
                                                                                                                                          301
                                                                                                                                                                                                  281
                                                                                                                                                                                                                                                        261
                                                                                                                                                                                                                                                                                    754
                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                        221
                                                                                                                                                                                                                                                                                                                                                                                                                                201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Met G1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC
 GATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAAC
              AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                               TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                                                                                                                                                                                                     ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                                                                                                                             GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                      ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                          GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGly
                                                                                                                                                                                                 GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                                                                                                       CCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                              ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCAGCCACCTGCAACAAGACCGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC
                                                                                 ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                        CCCATG
 894
                          360
                                                       834
                                                                                    340
                                                                                                                 828
                                                                                                                                           320
                                                                                                                                                                        828
                                                                                                                                                                                                  300
                                                                                                                                                                                                                               828
                                                                                                                                                                                                                                                           280
                                                                                                                                                                                                                                                                                      813
                                                                                                                                                                                                                                                                                                                  260
                                                                                                                                                                                                                                                                                                                                             753
                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                       693
                                                                                                                                                                                                                                                                                                                                                                                                                                   220
                                                                                                                                                                                                                                                                                                                                                                                                                                                             633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93
```

S

ઈ

밁

밁

```
RESULT 4
US-09-949-016-5044
Sequence 5044, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
                                                                                                                                                                                                                                                                                      1675
                                                                                                                                                                                                                                                                                                                                                        1615
                                                                                                                                                                                                                                                                                                                                                                                                                       1555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                     AAAATGGATAAAGGCGAGCCCCTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                        LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                                                                         ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                                                                            GlyGlyArgGlyMetAspArgGlyGlyBheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                          ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ly8ValSerLeuAlaArgLy8Ly8ProProMetA8nSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAGGAAGAGGTGGCCTCATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                    656
                                                                      AND
                                                                      SESU
                                                                      THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                      1614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         440
                                                                                                                                                                                                                                                                                                                     640
                                                                                                                                                                                                                                                                                                                                                      1674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1014
                                                                                                                                                                                                                                                                                                                                                                                   620
                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; PRIOR FILING DATE: 2000-10-20

; PRIOR APPLICATION NUMBER: 60/237,768

; PRIOR FILING DATE: 2000-10-03

; PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

; NUMBER OF SEQ ID NOS: 207012

; SOFTWARE: FASTSEQ for Windows Version .

; SEQ ID NO 5044

; LENGTH: 1785

TYPE: DNA
               Ś
                                                   문
                                                                               δ
                                                                                                                   밁
                                                                                                                                           S
                                                                                                                                                                                  片
                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-791-017A-2 (1-656) x US-09-949-016-5044 (1-1785)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-949-016-5044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ĕ
::
                    241
                                                     694
                                                                                                                   634
                                                                                                                                                    201
                                                                                                                                                                                    574
                                                                                                                                                                                                                                                  514
                                                                                                                                                                                                                                                                                   161
                                                                                                                                                                                                                                                                                                                    454
                                                                                                                                                                                                                                                                                                                                                                                                                                                     334
                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                                                                                                                                                   394
                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ThralaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
 ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                   GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                      ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                     MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                     ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                                                                                                                                                                                                                                                                    GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                    GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG
                                                                                                                                                                                                                                                                                                                                       AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                                                                                                                                                                                                                                                                     CAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCCACCTGCACCTACAAGACCGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCT
                                                                                                                                                                                    ATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCG
                                                                                                                                                                                                                                                    CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NOS: 207012
for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6.89e-162
3178.50
88.72%
88.72%
87.49%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps:
                                                                                                                                                                                                                                                                                                                                                   160
                                                     753
                                                                                                                     693
                                                                                                                                                    220
                                                                                                                                                                                    633
                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                    573
                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                    513
                                                                                                                                                                                                                                                                                                                                                                                     453
                                                                                                                                                                                                                                                                                                                                                                                                                    140
                                                                                                                                                                                                                                                                                                                                                                                                                                                     393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       93
```

밁 S 음 성

δ

유 원

밁 S 밁 Ş 용 Ş 멍 S 밁 Ş 밁 8 밁 र् 문

문

```
1615
                                                                                                                                                                                                                                                                                                                                                  1315
                                                                                                                                                                                                                                                                              1375
                                                                                                                                                                                                                                                                                                                                                                                                                     1255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1015
                                                                                                                                                                                                                                                                                                                                                                                   501
                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  281 GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        754
   GGTGGCCGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGG
                       GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                           ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                            GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                                                                                                    AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                      GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TACCTGGACAAGGAAACAGGAAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AspGluGlyProAspLeuAspLeuGlyProProValAsspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln 280
                                                                                                                                                                                                                                                                              GACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGC
                                                                                                                                                                                                                                                                                                                                                 GGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                     GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGTGAGGGCAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGly 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----CCCATG
   1674
                                                                     1614
                                                                                                                                                                                                                                                                              1434
                                                                                                                                                                                                                                                                                                                                                  1374
                                                                                                                                                                                                                                                                                                                                                                                                                     1314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1014
                                  620
                                                                                                        600
                                                                                                                                          1554
                                                                                                                                                                                                              1494
                                                                                                                                                                                                                                              560
                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                       500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             834
                                                                                                                                                                                                                                                                                                                                                                                   520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  828
Ş
                                                                Ş
                                                                                                      밁
                                                                                                                                                                      밁
                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 5
US-09-949-016-1954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                  문
                                                                                                                                  S
                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; ORGANISM: Human
US-09-949-016-1954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Мо.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      621
141 AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln 160
                                   394
                                                                    121
                                                                                                      334
                                                                                                                                        101
                                                                                                                                                                          274
                                                                                                                                                                                                                                            214
                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                   94
```

밁 5 밁 S 밁 S 밁

Ş

В S 밁 8 문 8 밁 8 밁 δ

밁 5 밁 ક 문 S 밁 ঠ 밁 5 밁 S 밁 5 문 S

```
APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASS
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF
FILE REFERENCE: CL001307
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-9-08
NUMBER OF SEQ ID NOS: 207012
SOPTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 1954
LENGTH: 1783
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-791-017A-2 (1-656) x US-09-949-016-1954 (1-1783)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1954, Application Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                            154 TATGGAACCTATGGACAGCCCATTGATGTCAGCTATACCCAGGCTCAGACCACTGCAATC
                                                                                                                                                                                                                                                                                                                                                                                                                     41 TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          34 ATGGCATCCATGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                                                                                                         ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TACAACACCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                           GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                         ThrThrAlaThrValThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                                                                                                                                                                                              TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
CAGCCTGCTTATCCAGCTTATGGGCAGCAGCCAGTAGCCACTGCACCTACAAGACCGCAG
                                                                                                ACCACTGCTACAGTCACCACCACCAGGCCTCCTATGCAGCTCAATCTGCATATGGCACT
                                                                                                                                                                                                ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC
                                                                                                                                                                                                                                                                                                                          TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4.84e-143
2826.50
83.08%
81.25%
77.80%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative: Mismatches: Indels: Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ASSOCIATED
OF DETECTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AND USES THEREOF
453
                                             140
                                                                                                393
                                                                                                                                                120
                                                                                                                                                                                                333
                                                                                                                                                                                                                                              100
                                                                                                                                                                                                                                                                                                273
                                                                                                                                                                                                                                                                                                                                           80
                                                                                                                                                                                                                                                                                                                                                                                            213
                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  640
```

रु है रु

```
1135
                                                                                                                                                                                                                                                                                                                      1075
                                                                                                                                                                                                                                                                                                                                                                                                       1015
                                                                                                                                                                                                                                                                                                                                                             421
                        501
                                                                                                                                                                                         461
                                                                                                                                                                                                                                                       441 LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          341 AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  321 ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301 GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGAGCAACCCATGATCCACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
GlyProArgGlySerArgGlyAenProSerGlyGlyGlyAenValGlnHisArgAlaGly
                                                                                         GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                          ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyFro
                                                                                                                                                                                                                                   AAAGTCTCTTGCTCGGAAGAGGCCTCCAGTGAACAGTATGCAGGGTGGTATGCCACCC
                                                                                                                                                                                                                                                                                                                    CCTACTGCCAAAGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                                                                                                                                                                            ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                     TACCTGGACAAGGAAACAAGAAAGCCCAAAGGTGATGCCACAGTGTCCTGTGAAGACTCA 1074
                                                                                                                                                                                                                                                                                                                                                                                                                               TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTGCAATTTATGTACAAGGATTAAATGACAATGTGACTCTAGATGATCTGGTAGACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCACCCCAAACTTGATCCTACAGCCAAGCTCCAAGTCAGTATAGCTAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCTGCCTCCCACTAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGAAACCGAGCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGCAGCCAGTCACCGCACCTCCATCCTACCCTACCCAGCTATTCCTCTACACAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCAGCCTAGGATATGGACAGAGTAACTGCAGTTATCCCCAGGTACCTGGGAGCTACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ### PATGGADACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG
                                                                                                                                                CGTGAGGGCAGAGGGATGCCACCACCACTCTGCGGAGGTCCAGGAGGCCCAGGAAGTCCT
                                                                                                                                                                                                                                   1194
                                                                                                                                                                                                                                                                                                                  1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1014
                     520
                                                               1314
                                                                                                      500
                                                                                                                                                1254
                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                          460
                                                                                                                                                                                                                                                                                                                                                             440
                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         633
```

ঠ

음 성

문

8 8 8 8 8 8

ş

8 8 8 8 8 8

& B 8

5 8 5 8 8 8

밁

```
; TOPOLOGY: 1:
; MOLECULE TYPE:
US-08-437-027-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 6
US-08-437-027-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   昂
Alignment..Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 18, Application US/08437027 Patent No. 5670317
                                                                                                                                                                                                                                                                                                                                                                                                                                      LUNESS:
LUNESS:
LUNESS:
LUNHAM LLP
LIREET: 1185 Avenue of the Americas
CITY: New York
STATE: New York
COUNTRY: U.S.A.
ZIP: 10036
COMPUTER DT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: GETAID, William
APPLICANT: GETAID, William
APPLICANT: GETAID, WILLIAM
APPLICANT: GETAID
APPLICANT:
GETAID
APPLICANT:
TITLE OF INVENTION: SMALL ROUND CELL TUMOR
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
                                                                                                                                                    IELEFAX: 212-391-0525
INFORMATION FOR SEQ ID NO:
                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 2412 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                               CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: White, John P
REGISTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 46
                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: 212-278-0400
                                                                                                                                                          TELEPHONE: 212-2...
TELEPHONE: 212-391-0525
                                                                                   STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                        FILING DATE:
                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1555 CATGGTGGTCCCGGTGGAATGTTCAGAGGTGGCTGTGGTAGAGACAGAAGTGGCTTCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1315 GGACCCCAGGGTTCCCGAGGGAACACCTCTGGAGGAGGAAACGTCCAGCCAAGCTGGA 1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAACGGATAAAGGCGAGCACTGTCAGGAGCGCAGAGATCAGCCCTAC 1780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyAspArgGlyArgGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCCCGGA - CCTTTGATGTAACCAATGGGAGGAAGAAGAAGAGGACGTGAAGGACCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACAAGTGTAAGGCTCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTCCCACCCCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACAGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGAGC 1434
                                                                      linear
                                                      cDNA to mRNA
                                                                                                                                                                                                                                                                                                                                         US/08/437,027
                                                                                                                                                                                                                                     46416/JPW/CCA
                                                                                                                                                                                                                                                                                                                                                                             Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1614
```

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                            RESULT 7
US-09-919-039-322
; Sequence 322, Application US, Patent No. 6727066; GENERAL INFORMATION: FAPPLICANT: Kaser, Matthew R. TITLE OF INVENTION: GENES E: FILE REFERENCE: PA-0035 US
                                                                                                                                        S
                                                                                                                                                                 음 중
                                                                                                                                                                                                                닭
                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-791-017A-2 (1-656) x US-08-437-027-18 (1-2412)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    No.:
                                                                                                                                                                                                                                                                             625
                                                                                                                                                                                                                                                                                                                               565
                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                   505
                                                                                                                                                                                                                                                                                                                                                                                                                                     445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  145
                                                                                                                                                                                                                                                                                                                                                                                                           161
                                                                                                                                                                                                                                                                                                                                                                                                                                                              141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                205
                                                                                                                                            261
                                                                                                                                                                                                 241
                                                                                                                                                                                                                           685
                                                                                                                                                                                                                                                   221
                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                       745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25
                                                                                                                                                                                                                                                                                                                                                                                                                                    GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                  TyrGlyGlnGlnSer
                                                                                                                                                                                                                                         GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                                                                                                                                                                MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                                                                                                                                                  ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                                                                                                                                                                                      ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                           GGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTAC
                                                                                                                                                                                                                                                                             ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTAT
                                                                                                                                                                                                                                                                                            ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                                                                                               ATGCAGCCAGTCACTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCG
                                                                                                                                                                                                                                                                                                                                                                                   CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCCAGGTACCTGGGAGCTACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCAGCCACCTGCAACACCAAGACCGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                    TACGGGCAGCAGAGT
                                                                                                                                                                       CCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.35e-67
1420.00
100.00%
100.00%
39.09%
                                                               US/09919039
              R.
EXPRESSED
                                                                                                                                             265
                                                                                                                   819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
              Ħ
              TREATED
              HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0000
              C3A
              LIVER
              CELL
              CULTURES
                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100
                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                               160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          84
                                                                                                                                                                        804
                                                                                                                                                                                                  260
                                                                                                                                                                                                                                                                              684
                                                                                                                                                                                                                                                                                                                               624
                                                                                                                                                                                                                                                                                                                                                         200
                                                                                                                                                                                                                                                                                                                                                                                   564
                                                                                                                                                                                                                                                                                                                                                                                                                                     504
                                                                                                                                                                                                                         744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/919,03
CURRENT FILING DATE: 2002-09-09
PRIOR APPLICATION NUMBER: 60/222,113
PRIOR FILING DATE: 2000-07-28
NUMBER OF SEQ ID NOS: 401
SOFTWARE: PERL PROGram
SEQ ID NO 322
LENGTH: 1939
TYPE: DNA
CORGANISM: Homo sapiens
PEATURE:
NAME/KEY: misc feature
OTHER INFORMATION: Incyte ID No. 672706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                S
                                                               밁
                                                                                       S
                                                                                                                                        5
                                                                                                                                                                                           S
                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
              밁
                                                                                                                   片
                                                                                                                                                                       밁
                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-791-017A-2 (1-656) x US-09-919-039-322 (1-1939)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-919-039-322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scores:
                                                                                                                                                                                                                            394
                                                                                                                                                                                                                                                                                                       118
                                                                                                                                                                                                                                                                                                                                 319
                535
                                                                                                                      463
                                                                                                                                             178
                                                                                                                                                                        415
                                                                                                                                                                                                 158
                                                                                                                                                                                                                                                    138
                                                                                                                                                                                                                                                                                                                                                                                    280
                                                                                                                                                                                                                                                                                                                                                                                                                                       223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 40
                                                                                                                                                                                                                                                                                                                                                         98
                                                                                                                                                                                                                                                                                                                                                                                                             79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTATGGCCAGAGCAGCTAT---TCTTATGGCCAGAGCCAGAACACAGGCTATGGA
                                                                                                                                                                                       TyrAsnGlnProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGly
                                                                                                                                                                                                                                                                                               TyrGlyThrGlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ThrTyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProPro---ThrGlyTyrThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SerTyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TACCCCACCCAGCCGGGCAGGGCTATTCCCAGCAGAGCAGTCAGCCCTACGGACAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TyrThrAlaGlnProThrGlnGlyTyrAla---GlnThrThrGlnAlaTyrGlyGlnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGGCCTCAAACGATTATACC------CAACAAGCAACCCAAAGCTATGGGGCC
                CAGGGCTATGGACAGCAGAACCAGTACAACAGCAGCAGTGGTGGTGGAGAGGTGGAGGT-
                                                                                                                                              SerTyrProMetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSer
                                                                                                                                                                                                                                                    ArgProGlnAspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGly 157
                                                                                                                                                                                                                                                                                                                                  TATGGC--
                                                                                                                                                                                                                                                                                                                                                        TyrAspThrThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAla 117
                                                                                                                                                                                                                                                                                                                                                                                    ACTCAGTCAACTCCC
                                                                                                                                                                                                                                                                                                                                                                                                  ThrProThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGly---ThrGlyAla
                                        SerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProPro
                                                                                     ThrGlnProThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnPro
                                                                                                                                                                                                                                                                                AGTTACAGTGGTTATAGCCAGTCCACGGAC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7.51e-60
1273.50
53.96%
44.99%
35.05%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6727066 478620.
                                                                                                                                                                           -CAGAGCÁGCAGCTÁTGGGCAGCCCCÁG---AGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                  - AGTAGCCAGAGCTCCCAATCGTCT
                                                                                                                                                                                                                                                                                                                                                                                      -CAGGGATATGGCTCGACTGGCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1939
301
60
153
156
30
                                                                                                                                                                                                                             CCCAGCAGCACCTCGGGAAGT
                                                                                                                      -----ÀGCTATGGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----ACTTCA
```

137

348

393

217 492 197 462 177 414

534

318

279

222 59 186 39

591GlyArgGlyGlyAspArgGlyGlyPheArgGlyGlyArgGlyMetAspArgGly 608	GGGGTAACTACGGGGATGATCGTCGTGGTGGCAGAGGAGGCTATGATCGAGGCGGCTAC	GlvGlvAraGlvGlvLeuMetAgpAraGlvGlvProGlvGlvMetPheAraGlv	554 ProProPheProProProGlyGlyAspArgGlyArgGlyProGlyGlyMetArg 572	534 PheAlaTrpArgThrGluCygAgnGlnCygLygAlaProLygProGluGlyPheLeuPro 553 :::	ABNValGlnHiBArgAlaGlyAspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsn	494 ArgGlyGlyPheProProArgGlyProArgGlySerArgGlyAsnProSerGlyGlyGly 513 	474 ProGlyGlyProGlyGlyProGlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAsp 493	454 MetArgGlyGlyLeuProProArgGluGlyArgGlyMetProProProLeuArgGlyGly 473	434 AspPheGlnGlySerLysLeuLysValSerLeuAlaArgLysLysProProMetAsnSer 453	414 ThrValSerTyrGluAspProProThrAlaLysAlaAlaValGluTrpPheAspGlyLys 433 1092 ACGGTCTCTTTGATGACCCACCTTCAGCTAAAGCAGCTATTGACTGGTTTGATGGTAAA 1151	394 GlyGlnProMetIleHisIleTyrLeuAspLysGluThrGlyLysProLysGlyAspAla 413 ::::: :::	374 LeuAspAspLeuAlaAspPhePheLysGlnCysGlyValValLysMetAsnLysArgThr 393 ::::: :::	354 ProAspGluAspSerAspAsnSerAlaIleTyrValGlnGlyLeuAsnAspSerValThr 373 :::::: :::	334 ABRLYSBFroGlyGlyProMetABpGluGlyProAspLeuAspLeuGlyProProValAsp 353	316 GlyArgGlyGlyArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPhe 333	298 ABPABNAT9GlyAT9GlyAT9GlyPheABPAT9GlyGlyMetSerAT9Gly 315	278 TyrGlyGlnGluSerGlyGlyPheSerGlyProGlyGluAenArgSerMetSerGlyPro 297	258 SerSerSerTyrGlyGlnGlnSerSerPheArgGlnAspH1sProSerSerMetGlyVal 277	238 ThrSerTyrProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGln 257
Db.	Q (F 5	S B	Q D	. & . B	Q Db	us-1 Qy	Best Ques	Alic Prec Scor	, ; ;					; pa ; ps ; ps	Db RESI	S B 1	S B .	δ, β

8 8 8 8 8 8

Db 31626 ACCACCACTCCGTGGAGGTACTTTTTCTGAGCTCCTATGTTGCATTAAAAGGTTTTCAGT Qy 472
447 SLYSP
Qy 430PheAspGlyLysAspPheGlnGlySerLysLeuLysValSerLeuAlaArgLy
Qy 422 ThralalybalaalaValGlu-Trp
402 LeuAspLysGluThrGlyLysProLysGlyAspAlaThr ::: ::: 31405 TTAGAGAAGATTACAGGCAGACCTAATGCATCTGGGAGT
Alignment Scores: 1.27e-41 Length: 35784 Pred. No.: 958.00 Matches: 233 Score: 958.00 Matches: 5 Percent Similarity: 29.75\$ Conservative: 5 Best Local Similarity: 26.37\$ Mismatches: 11 Query Match: 26.37\$ Indels: 554 DB: 4 Gaps: 6
RESULT 8 US-09-949-016-16785, Application US/09949016 ; Sequence 16785, Application US/09949016 ; Patent No. 681339 ; GENERAL INFORMATION: APPLICANT: VENTER, J. Craig et al. TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND FILLE REFERENCE: CL001307 ; CURRENT APPLICATION NUMBER: 60/241,755 PRIOR RFILING DATE: 2000-10-20 PRIOR RFILING DATE: 2000-10-03 PRIOR APPLICATION NUMBER: 60/237,768 PRIOR FILING DATE: 2000-10-03 PRIOR APPLICATION NUMBER: 60/231,498 PRIOR APPLICATION NUMBER: 60/231,498 PRIOR APPLICATION NUMBER: 60/231,498 PRIOR FILING DATE: 2000-09-08 ; MUMBER OF SEQ ID NOS: 207012 ; SOFTWARE: FASESEQ for Windows Version 4.0 ; SEQ ID NO 16785 ; LENGTH: 35784 ; TYPE: DNA ; ORGANISM: Human US-09-949-016-16785
Qy 648 ArgGlnGluArgArgAspArgProTyr 656 ::: ::: Db 1632 AGACAGGATCGCAGGGAGGGCCGTAT 1658
Qy 629 MetGlyGlyArgArgGlyGlyArgGlyGlyProGlyLysMetAspLysGlyGluHi
Qy 609 GlyPheGlyGlyGlyArgArgGlyGlyProGlyFroProGlyProLeuMetGluGln Db 1593 GGCTTT
Db 1533 CGGGGCGCGGGGGGGACCGTGGAGGGCTTCCGAGGGGCCGGGGTGGTGGGGACAGAGGT

음 성

8 8 8

CTGGTTAGGGACACTAGTCAGCCATTCACTGGACGCTTCAGAGCCTTCTGAAGATTGATT	1 1 1 1 1 1 1 1 1 1	T 32345 Qy 604 - 472 Db 33425 T 32405 Qy 624 F 486 Db 33485 G 32465 Qy 644 F 506 Db 33545 G 32525 Qy 644 B 526 Qy 644	472 Qy 560 2166 CTCCAGCCTGGGCAACAGTGTGAGACTCCGTCTCCAAAAAAAA	33185 9 S	31866 TIGGITGTGTTGTATAGACATGCCTATTCCTTACAGAATTGTGGGAAGTTCAGCCAGGTG	533
YMELASPARGGIYGIYPHEGIYGIYARGARGGIYGIYPROGIYPROGIYPR 624	ASPATGG1YG1YPheG1YG1YG1YATGATGG1YG1YPTOGACCCCCTGGACCCCCTGGACCAGACGACGACGACGACGACGACGACGACGACGACG		TCTGCAGCCACCACTGACTGCTTTCGCCCTGCTATTCTCACCTTAGGTGGTGATCGTGG 33304 YATGGTYGTYPTCGTYGTYMETATGGTYGTYATGGTYGTYATGGTGATCGTGG 33304 YATGGTYGTYPTCGTYGTYMETATGGTYGTYATGGTYGTYPT 584 YATGGTYGTYPTCAGAGGTGGCATGCGGGAGAGAGGTGGCTGATCGTGGTGGTCC 33364 CAGAAGGTGGCCCTGGTGGCATGCGGGGAGAGAGAGGTGGCCTCATGGATCGTGGTGGTCC 33364 OGTYGTYMETPHAATGGTYGTAAGGTYGGTGGAGAAGAGGTGGCTTCCGTGGTGGCCGGGG 33424	TTTGAGTTGTCGTGTCCTCATTTCTAAATTGTCAGCCCGATGCCGAGATTGAGTGAAGTG TCTGGTTTGTTCTGAGAGAGAAGGAAGCAGCTTCCACAGTGTCCACAGGGCC		GATCCTCTTGATAGTGAGTGTGTACCTGTTCACACACCACCTTTCCTTGTTTATCTTCCTCysGlyAsnGlnAs

Db 32046 AAAATTAGCCGGGTATGGTGGTGCATGCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCA 32105	Qy 472 472	Db 31986 GTCAGGAGTTTAAGACCAGCCTGGCCAACGTGGTGAAACTCCCTCTCTCT	Qy 472 472	Db 31926 CAGTGGCTCACGCCTGTAATCCCCAGCACTTTGGGAGGCTGAGGTGGGCGGATCACCTGAG 31985	Qy 472 472	Db 31866 TTGGTTGTGTCTGTATAGACATGCCTATTCCTTACAGAATTGTGGGAGTTCAGCCAGGTG 31925	Qy 472 472	Db 31806 AGAACATGGGAGGCTGGAAGCCCACTCTGCCTGTCAACTCCAGACTGCCATTTATTCAGCT 31865	Qy 472 472	Db 31746 AGTCAATACTAGACTATCGAGAGCTAACAATGAATGTTTGTT	472 472	31686 ACACTTCATACCCTTGAGAAACTTGATTATTAGAGTGAAGAATATAAAATTGTGTGTAG 31	472	Db 31626 ACCACCACTCGTGGAGGTACTTTTCTGAGCTCCTATGTTGCATTAAAAGGTTTTCAGT 31685		Oy 447	31506 ITGTCTTGTTCCAGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGGAA	430PheAspGlyLysAspPheGlnGlySerLysLeuLysValSerLeuAlaArgLy 447	Db 31461GTGGAGTTGGTGAACAGGGAGTACAGGGGAGTAATTGATGTTCTG 31505	422 ThrAlaLysAlaAla	Db 31405 TTAGAGAAGATTACAGGCAGACCTAATGCATCTGGGAGTGG-TCATTTGATGATGATGAT 31460	Qy 402 LeuhapiyaGluThrGlyLyaProLyaGlyAapAlaThrValSerTyrGluAapProPro 421	US-10-791-017A-2 (1-656) x US-09-949-016-16786 (1-35784)	26.37% Indels:	t Similarity: 29.75% Conservative: ocal Similarity: 29.12% Mismatches:	ll Length:	Dligament Correct	ORGANISM: Human	LENGTH: 35784	SOPTWARE: FASTSEQ for Windows Version 4.0	PRIOR FILING DATE: 2000-09-08 NUMBER OF SEC IN NOS. 20221.	PRIOR PILING DATE: 00/237,768 PRIOR FILING DATE: 2000-10-03 DETON PRIOR FILING DATE: 2001-10-03	PRIOR FILING DATE: 2000-10-20	9,016
DD 33125 TENGAGTIGNGGIGNCCHCATTHCHAAATIGNCAGCCGGAIGCCGAGATIGAGHGAAGHG 33189		EEO		LEV 23003 AFFWERTTIFFARFEFFERMATAFWAATTFFWAATTFFFFFFFFFFFFFFFFFFFFFFF	3350	5233 CIICUCCIUGANAANCHAAAGIGCAACCAAGIGIAAAGUCCCCAAAAGCCIGAANGGCIICCCC	S33 neneAtatroArginzGuCysAsnGunZGuZyBAtaeroJysz	בבים - הואים ובישות של מיים ביים ביים ביים ביים ביים ביים ביים		32825 GATCCTCTTGATAGTGAGTGTGTGTGTCACACACCACCTTTCCTTGTTTATCTTCCT	528	Db 32765 TGACCTGTGCGTGGGGTGCAATGCTGCCTGAGGCTGTGCCCTAAAGCATGGGTGTACATA 32824	Qy 528 528	Db 32705 CTGGTTAGGGACACTAGTCAGCCATTCACTGGACGCTTCAGAGCCTTCTGAAGATTGATT	Qy 528 528	Db 32645 CCCATCCCCACTCTAGAGTGGATTGCTCTGTCTAGAGGAACAGAATGATGACCCTGATGG 32704	Qy 528 528	32586 TCCGTA-TGTACTTGTCTTGGCAAATTGATACCCTACGAGTGAAGCCACCCTTCCCTCAC		Db 32526 AGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGAAACTGGCAGTGTCCCAA 32585	THE CONTROL CONTROL CONTROL OF THE C	486 gMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArgGlyProArgGlySerAr	32406 TCTTGTTGTTGTTGTAGGTCCAGGAGGTCCTGGGGGAACCCATGGGTCG	473GlyProGlyGlyProGlyGlyProGlyGlyProMetGlyAr	Db 32346 TACTTAGTGATTTTTATTTCCTATAGCAAATTTGGTGCTACAGAGAAATGATTTGCTGTT 32405	Qy 472 472	Db 32286 GAGCCACACGGAAACACGGGACAGGTGATGGGGAAATGACAGCAGTAGTATCTGTGGGTT 32345	Qy 472 472	Db 32226 AGCTCTGTTTCTGTAGAGCACGTGGAACACGCTCCTCACAGGGAAGGGGGCTGATGGCCT 32285	Qy 472 472	Db 32166 CTCCAGCCTGGGCAACAGTGTGAGACTCCCGTCTCCAAAAAAAA	Qy 472 472	Db 32106 GGAGAATTGTTTGAATCTGGGGGGGTGGAGGTTGCAGTGAGCAAAGATCGTGCCACTGCA 32165	Qy 472 472

```
PATENT OF INVENTION: Expressed Sequence Tags a Patent No. 678361;
FILE REFERENCE: 59.US2.REG
CURRENT APPLICATION NUMBER: US/09/513,999C;
CURRENT FILING DATE: 2000-02-24
PRIOR APPLICATION NUMBER: US 60/122,487
PRIOR FILING DATE: 1999-02-26;
NUMBER OF SEQ ID NOS: 36681
SOFTWARE: Patent.pm
SEQ ID NO 1657
TENESTME 1454
                                                                                                                                                                                                                                                                                                                                                                      RESULT 10
US-09-513-999C-1657
; Sequence 1657, Application US/09513999C
; Patent No. 6783961
            Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     片
                                                                   Pred.
                                                                             Alignment Scores:
                                                                                                      ; NAME/KEY: CDS
; LOCATION: 56..454
US-09-513-999C-1657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                            APPLICANT: Dumas Milne Edwards, APPLICANT: Duclert, A. APPLICANT: Giordano, J.Y.
                                                                                                                                                        TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                            FEATURE:
                                                                  Хо
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              33365
                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGGCCCTCTTTACCTTGCAGAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -GTAAGTGCTGGTGAAAAGCAGCTGTGGGCCGCCAGGCACAGTAAGAGGACAGCCCTTCC 33603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               yArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAspArgGlyGlyPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCAGGAAGGGCACCTGGGGGCTCTGGAAGGGCTTCCTCACCCCTTCCCATTCTAACCGA 33723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCTTGGTTGGCGCAAGTCCTCATGTCTCTAGGAAGCTTGTGATAGTGGTTGGGAGGAG 33663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAAGGACCTGGAAAAAATGGATAA 33544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGlyLysMetAspLy 644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 yMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGlyProProGlyPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    oGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArgGlyGlyArgGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTGCAGCCACCCACTGACTGCTTTCGCCCTGCTATTCTCACCTTAGGTGGTGATCGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTGGTTTGTTCTGCTGAGAGAAGGAAGCAGCTTCCACAGTGTCCACAGGGCC 33244
 1.59e-28
676.00
99.25%
99.25%
18.61%
                                                                                                                                                                                                                                                                                                                                                       J.B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              -GlyGluHisArgGlnGluArgArgAspArgProTyr 656
            Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                Tags
                                                                                                                                                                                                                                                                                                                 and
                                                                                                                                                                                                                                                                                                                 Encoded Human
454
132
1
1
0
                                                                                                                                                                                                                                                                                                                 Proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                               33781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           33484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               33364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   33304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              559
                                 Ś
                                                               밁
                                                                                     Ś
                                                                                                                   밁
                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                              Pred. No.:
                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                  ; ORGANISM: Homo
US-09-621-976-13361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-621-976-13361
                                                                122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         175
             182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21
              GCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATG
```

```
; Sequence 13361, Application US/09621976; Patent No. 6639063; GENERAL INFORMATION:

; APPLICANT: Dumas Milne Edwards, J.B.

APPLICANT: Jobert, S.

; APPLICANT: Giordano, J.Y.

; TITLE OF INVENTION: ESTS and Encoded Human FILIE REFERENCE: GENSET 054PR2

; CURRENT APPLICATION NUMBER: US/09/621,976; CURRENT FILING DATE: 2000-07-21
                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                  US-10-791-017A-2 (1-656) x US-09-621-976-13361 (1-411)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-791-017A-2 (1-656) x US-09-513-999C-1657 (1-454)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS: 19335
SOFTWARE: Patent.pm
SEQ ID NO 13361
LENGTH: 411
TYPE: DNA
378.AlaAspPheDheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMet
                                                                                       358 SerAspAsnSerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeu
                                                                                                                                                                                       338 GlyProMetAspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       115 TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41 TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                               62 GGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       56 ATGCCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCA-CAGGGCTACAGTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAla 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC
                                                                                                                                                                                                                                                                                              5.55e-25
609.00
99.15%
99.15%
16.76%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and Encoded Human Proteins
                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                          411
116
0
1
1
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      453
                                                          181
                                                                                                    377
                                                                                                                                               121
                                                                                                                                                                                     357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         114
```

CANCEF

```
GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001307

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: PastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                             Ş
                                                                                                                                                                                       밁
                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                뭐
                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             / TYPE: DNA
/ ORGANISM: Human
US-09-949-016-66382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 12
US-09-949-016-66382/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                     밁
                                                                                र्
                                                                                                           밁
 US-09-220-132-82
                   RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-791-017A-2 (1-656) x US-09-949-016-66382 (1-601)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 66382,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patent No. 681233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NO . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     302
                                                                                    101
                                                                                                                      101
                                                                                                                                                                                        161
                                                                                                                                                                                                                                                           221 TATGGAACCTATGGACAGCCCATTGATGTCAGCTATACCCAGGCTCAGACCACTGCAATC 162
                                                                                                                                                                                                                                                                                                                               281 TACAACACCCAGCCCACTCAAGGÁTÁTGCACAGACCACCCAGGCÁTATGGGCÁACAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                 341 ATGGCATCCATGGATTACAGTACCTATAGCCAAGCTGCAGYGCAGCAGGGCTACAGTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         398
                                                                                                                                                      81
                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                             41
                                                                                                                                                                                                                                                                                                                                                               21
                                                     4
                                                                       ThrThrAlaThrValThrThrThrGlnAlaSerTyrAla 113
                                                                                                                                            ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                        TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA
                                                                                                                                                                                                            TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                  TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                        TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                     MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGCAAACTTAAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGT 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ySerLysLeuLysValSerLeuAlaArgLysLysProProMetAsnSer 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rGluAspProProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATTGCCACAGTGTCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IleHisIleTyrLeuAspLysGluThrGlyLysProLysGlyAsp-AlaThrValSerTy
                                                                                                                    ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.66e-22
566.00
94.69%
94.69%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          107
                                                                                                                                                      100
                                                                                                                                                                                        102
                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                               40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        417
                                                                                                                      42
                                                                                                                                                                                                                           80
                                                                                                                                                                                                                                                                                                                               222
                                                                                                                                                                                                                                                                                                                                                                                                 282
                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
 . ঠ
                                                  뭐
                                                                                S
                                                                                                                                                 δ
                                                                                                                                                                                       문
                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score:
                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-791-017A-2 (1-656) x US-09-220-132-82 (1-1682)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-220-132-82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No. 6506607

GENERAL INFORMATION:

APPLICANT: Shyjan, Andrew W.

APPLICANT: SINTAIN, AND AND COMPOSITIONS FOR THE IDENTIFICATION AND ASSESSMENT TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR THE DIAGNOSIS OF PROSTATE CAN FILE REFERENCE: 07334-074001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: 1
SEQ ID NO 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 82, Application US/09220132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/220,132
CURRENT FILING DATE: 1998-12-23
PRIOR APPLICATION NUMBER: US 60/079,303
PRIOR FILING DATE: 1998-03-25
PRIOR APPLICATION NUMBER: US 60/068,821
PRIOR FILING DATE: 1997-12-24
NUMBER OF SEQ ID NOS: 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 1682
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
0
::
                   198
                                                     463
                                                                                                                      415
                                                                                                                                                      158
                                                                                                                                                                                        394
                                                                                                                                                                                                                         138
                                                                                                                                                                                                                                                           349
                                                                                                                                                                                                                                                                                           118
                                                                                                                                                                                                                                                                                                                             319
                                                                                                                                                                                                                                                                                                                                                                                                 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      223 GGCTATGGCCAGAGCAGCTAT---TCTTCTTATGGCCAGAGCCAGAACACAGGCTATGGA
                                                                                                                                                                                                                                                                                                                                                                 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            40
                                                                                                                                                                                                                                                                                                                                                                                                                                    79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21 TyrThrAlaGlnProThrGlnGlyTyrAla---GlnThrThrGlnAlaTyrGlyGlnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
ThrGlnProThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnPro
                                                                                                                                                                                                                                                                                TyrGlyThrGlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThr 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ThrTyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProPro---ThrGlyTyrThr 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TACCCCACCCAGCCCGGCAGGGCTATTCCCAGCAGAGCAGTCAGCCCTACGGACAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FastSEQ for Windows Version
                                                                                                                                                     TyrAsnGlnProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGly
                                                                                                                                                                                                                       ArgProGlnAspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGly 157
                                                                                                                                                                                                                                                           TATGGC-----AGTÄĞCCAGAGCTCCCAATCGTCT
                                                                                                                                                                                                                                                                                                                                                                                                 ACTCAGTCAACTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                         ThrProThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGly---ThrGlyAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SerTyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAla 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGGCCTCAAACGATTATACC-----CAACAAGCAAGCCAAAGCTATGGGGCC
                                                                                    SerTyrProMetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSer 197
                                                                                                                      TACGGTAGCAGTTCT------CAGAGCAGCAGCTATGGGCAGCCCCAG---AGTGGG
                                                                                                                                                                                                                                                                                                                                                              TyrAspThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAla 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTTACAGTGGTTATAGCCAGTCCACGGAC--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9.45e-18
486.00
41.07%
30.50%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                   CAGGGATATGGCTCGACTGGCGGC 318
                                                                                                                                                                                          CCCAGCAGCACCTCGGGAAGT 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1682
176
61
182
160
29
                                                     AGCTATGGTGGA
                                                                                                                                                                                                                                                              -------
                                                     492
                                                                                                                        462
                                                                                                                                                        177
                                                                                                                                                                                                                                                             393
                                                                                                                                                                                                                                                                                                                                 348
                                                                                                                                                                                                                                                                                                                                                                                                                                     97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20
```

```
1448
                                                                                                 1394
                                                                                                                                                                                                                                                                                                                                                                                            1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1045 TCTTCAGATGAAAATGGGGGTACCTATGTTTCACCTC---CTGGAAATGAAGAAGAAGAA 1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  238
                                                yGly----
                                                                                              AGCGCCT----GACCAGGGAAGTAGAGGCGACTCGCCGAGCTCTGATTGACCGAATGG
                                                                                                                                                                                            AGAATGAAAGGAAAGTGGCACAGCTAGCTGAAGAATGAACGGCTCAAGCAGGAAATCG
                                                                                                                                                                                                                                                                                           CCCTCA-CTCTCCAGATTCCAGTCAGAGCTCCCT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sProProMetAsnSerMetArgGlyGlyLeuProProArgGluGlyArgGlyMetProPr 468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  uTrpPheAspGlyLysAspPheGlnGlySerLysLeuLysValSerLeuAlaArgLysLy 448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCAAAAATCTTC-ACCACTCTT------GACCCCT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sProLysGlyAspAlaThrValSerTyrGluAspProProThrAlaLysAlaAlaValGl 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATGTGCTTTTCCAGACTGATCCAACTGCAGAGATGGCAGCTGAGTCATTGCCTTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AsnLysProGlyGlyProMetAspGlu------GlyProAspLeuAspLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyArgGlyGlyGlyArgGlyGlyMetGlySerAlaGly-----GluArgGlyGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCGGCGGCGGCGGCGGTGGTGGTTACAACCGCAGCAGTGGTGGCTATGAACCCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AspAsnArgGlyArgGlyArgGlyPheAspArg-----GlyGlyMetSerArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TyrGlyGlnGluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGTGGCAGTGGCGGTTATGGCAATCAAGACCAGAGTGGTGGAGGTGGCAGCGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ThrSerTyrProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGGGCTATGGACAGCAGAACCAGTACAACAGCAGCAGTGGTGGTGGAGGTGGAGGTGGA
TGAATCTGCACCAAGCATGAACAATTGGGAGCATCAGTCCCCCACTTGG 1496
                                                                                                                                         eProProArgGlyProArgGlySerArgGlyAsn--
                                                                                                                                                                                                                                                                                                                                                                                                                                          oProLeuArgGlyGlyProGlyGlyProGlyGly-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTGGCTGACTGAGGAGGAGCCAGAACCAGCA-----GAGGTCACAAGCACCTCCCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sMetAsnLysArgThrGlyGlnProMetIleHisIleTyrLeuAspLysGluThrGlyLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCGGGACACTGTCCAGCTGGGAGCTGGAAGCCTGGTATGAGGACCTGCAAGAGGTCCTG 1044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AsnAspSerValThrLeuAspAspLeuAlaAspPhePhe-LysGlnCysGlyValValLy 388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyProProValAspProAspGluAspSerAspAsnSerAlaIleTyrValGlnGlyLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATAAATTTGGTGTGTTCAAGAAGGAAGTGTATCTTCATACATCACCACACCTGAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTCGTGGAGGTGGCCGTGGAGGCAGAGGTGGCCATGGGCGGAAGTGACCGTGGTGGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TATGGACAGCAGGACCGTGGA------GGCCGCGCGCAGGGGTGGCAGTGGT---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SerSerSerTyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGTGGA------GGTAACTATGGCCAAGATCAATCCTCCATGAGTAGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProPro
                                                                                                                                                                                                                                                                                                                                                                                            -----GGCTCAGGAGGAAGAGGAAGACCAAGGGAAGACCAGGAAACGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----CAGCAGCAAAGCTATGGACAGCAGCAAAGCTATAATCCCCCT
                                           ----GlyAsnValGlnHisArgAlaGlyAspTrp
                                                                                                                                                                                                                                                                                                                                         ----ProGlyGlyProMetGlyArgMetGlyGlyArgGlyGl
                                                                                                                                                                                                                                        -ArgGlyGlyPh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -GCTTCTCTGGC 1139
                                             522
                                                                                                                                              ProSerGl
                                                                                              1447
                                                                                                                                                                                            1393
                                                                                                                                                                                                                                                                                                                                                                                            1273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1193
                                                                                                                                                                                                                                          497
                                                                                                                                                                                                                                                                                           1333
                                                                                                                                                                                                                                                                                                                                           492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               257
                                                                                                                                              511
                                                                                                                                                                                                                                                                                                                                                                                                                                            479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  744
片
                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 14
```

밁 ş 밁 ঠ 밁 5 밁 ঠ 밁 र् 밁 ঠ 밁 ঠ 밁 ঠ 밁 ঠ 밁 ঠ 밁 ঠ 밁 S 밁 श् 문 ঠ 닭 S 吊 ঠ 밁 5 밁

237 ProThrSerTyrProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGln

CCCACTAGTTACCCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAA

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                          Alignment Scores:
US-10-791-017A-2 (1-656) x US-08-343-443B-106 (1-954)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-343-443B-106
                                                                                                                                                              US-08-343-443B-106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 106,
Patent No. 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                         TELEFAX: 215-875-8394
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                          FEATURE:
NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ABDIT 1.0 DOS text edi
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 98
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-875-8383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: Weiser & Associates
STREET: 230 South Fifteenth Street
                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS LENGTH: 954 base pair:
                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 20-MAY-1992
ATTORNEY/AGENT INFORMATION:
NAME: Weiser, Gerard J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: PCT/
FILING DATE: 19-MAY-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                               No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: FILING DATE: 18-NOV CLASSIFICATION: 514
                                                                                                                                                                                                                                        TYPE: nucleic acid
TYPE: nucleic acid
double
                                                                                                                                                                                                                          TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                    NAME: Weiser, Gerard J.
REGISTRATION NUMBER: 19,763
                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Delattre, Olivier
Desmaze, Chantal
Melot, Thomas
                                                                                                                                                                                                                                                                         954 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Application US/08343443B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZUCMBAI, JESSÍCA
VENTION: UTCLEIC ACID CORRESPONDING TO A GENE OF
VENTION: CHROMOSOME 22 INVOLVED IN RECURRENT CHROMOSOMAL
VENTION: TRANSLATIONS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS
VENTION: TUMORS, AND NUCLEIC ACIDS OF FUSION RESULTING FROM SAID
VENTION: TRANSLOCATIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Peter, Martine
Ploougastel, Bo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Thomas, Gilles
                                                                                                                                                                           1..885
                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-NOV-1994
                                   484.00
100.00%
100.00%
13.32%
                                                                                                           6.65e-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PCT/FR93/00494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Olivier
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US/08/343,443B
                                                                                                                                                                                                                                                                                                                                                                                                                                                         FR 92/06123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Beatrice
                                                                                                                                                                                                                                                                                                                                                                           .6121P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      editor
                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
                               Gaps:
                               000089
```

Oy 98 TyrAspThrThrAlaThrValThrThrGlnAlaSerTyrAlaAlaGlnSerAla 117	79 ThrProThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAla 97	60 ThrTyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThr	SerTyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAla AGTTACAGTGGTTATAGCCAGTCCACGGAC	YTYRALa- :::	Qy 1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla 20	13.32% Indels: 4 Gaps: 6) x US-09-919-039-323 (1-1684)	No.:	INFORMATI .039-323 Scores:		NUMBER OF SEQ ID NO SOFTWARE: PERL Prog SEQ ID NO 323 LENGTH: 1684	; CURRENT APPLICATION NUMBER: US/09/919,039 ; CURRENT FILING DATE: 2002-09-09 ; PRIOR APPLICATION NUMBER: 60/222,113 ; PRIOR FILING DATE: 2000-07-28		RESULT 15 US-09-919-039-323 / Sequence 323, Application US/09919039 / Patent No. 6727066	Qy 317 ArgGlyGlyGlyArgGlyGlyMetGly 325	OY 297 ProAspAsnArgG1yArgG1yArgG1yG1yPheAspArgG1yG1yMetSerArgG1yG1y 316	277 ValTyrGlyGlnGluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGly 29	Qy 257 GlnSerSerTyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGly 276
D Qy	g Qy	dg Qy	Ωy	D Q	₽ \$. B. S	dg Qy	Qy da	B 8	dg Qy	dg dy	Qy dd	dg Qy	Db Qq	B 6	B Q	da Vo
440 uLysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPr 460	420 oProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLe 440	400 eTyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPr 420	381 Phe-LysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIl 400 :::	361 SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe 380 ::: ::: 948 GCAGCTGAGTCATTGCCTTTCTCCTTCGGGACACTGTCCAGCTGGGAAGCTGGAAGCCTGG 1067	888 CATACATCACCACACCTGAAAGCAGATGTGCTTTTCCAGACTGATCCAACTGCAGAGATG 947		306 GlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyArgGlyGlyMetGly 325	286 SerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArgGlyArgGlyArgGly 305	266 SerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGlnGluSerGlyGlyPhe 285	246 SerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSerTyrGlyGlnGlnSer 265	231SerTyrGlyGlnGlnProProThrSerTyrProProGlnThrGly 245 ::: 582 GGTGGAGGTAACTATGGCCAAGATCAATCCTCCATGAGTAGTGGTGGTGGCAGTGGTGGC 641	218 SerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnSer 230	198 ThrGlnProThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnPro 217	178 SerTyrProMetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSer 197 450 AGCTACAGCCAGCAGCCT	158 TyrAsnGlnProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGly 177	138 ArgProGlnAspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGly 157	. 118 TyrGlyThrGlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThr 137

ફ	460	460 oArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGly 479
Db	1214	
ફ	480	ProGlyGlyProMe 484
망	1237	1237 ACCAAGGGAGAACCAGGAAACGGAAACAGAGTGGTCATTCCCCAGCCCGGGCTGGAAAGC 1296
ई	484	484 tGlyArgMetGlyGlyArgGlyGlyAsp 493
дb	1297	1297 AGCGCATGAAGGAAAGAACAGGAGAATGAAAGGAAAGTGGCACAGCTAGCT
Ş	494	ArgGlyGlyPheProProArgGlyProArgGlySerArgGlyAsn 508
дb	1357	1357 ATGAACGGCTCAAGCAGGAAATCGAGCGCCTGACCAGGGAAGTAGAGGCGACTC 1410
Ş	509	509GlyAsnValGlnHisAr 518
뫄	1411	1411 GCCGAGCTCTGATTGACCGAATGGTGAATCTGCACCAAGCATGAACAATTGGGAGCATCA 1470
δ	518	gAlaGlyAspTrp 522
Db	1471	1471 GTCCCCCACTTGG 1483
Search (comple	Search completed: February 21, 2005, 04:22:17

Search completed: February 21, 2005, 04:22:17 Job time : 451.042 secs

```
-MODEL-frame+ p2n.model -DEV=xlp
-Q=/cgn2 1/USPTO_spool p/US10791017/runat 17022005_125809_22196/app_query.fasta_1.1358
-Q=/cgn2 1/USPTO_spool p/US10791017/runat 17022005_125809_22196/app_query.fasta_1.1358
-DB=PublIshed_Applications NA -QFMT=fastap -SUFFIX=p2n.rnpb -MINMATCH=0.1
-LOOPEXT=0 -UNITS=bite -START=1 -END=-1 -MATRIX=blosum62
-TRANNS=human40.cdi -LIST=45 -DOCALIGN=200 -THR SCORE=pct -THR MAX=100
-THR MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0
-MAXLEN=200000000 -USER=US10791017 @CGN 1t 879 @runat 17022005 125809 22196
-NCPU=6 -ICPU=3 -NO_MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSPBLOCK=100
-LONGLOG -DEV_TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5
-FGAPOP=6 -FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OM protein - nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Command line parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            seq length: 0 seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Xgapop 10.0 , X
Ygapop 10.0 , X
Ygapop 6.0 , I
Pgapop 6.0 , I
Delop 6.0 , I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-791-017A-2
3633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Published_Applications_NA:*

1: /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*

1: /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5384158 seqs, 2955248155 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 February 21, 2005, 02:07:46; Search time 3629.78 Seconds
                                                                                                                                                                                                                                                                                          13:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MASTDYSTYSQAAAQQGYSA......GGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*
                                                                                                                                                                                                                                                         /cgn2
/cgn2_6/ptodata/1/pubpna/US10_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US11_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US60_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US60_PUBCOMB.seq:*
                                                                                                                                                                                                                         /cgn2
                                                                                                                    n2_6/ptodata/1/pubpna/USO9A_PUBCOMB.seq:*
gn2_6/ptodata/1/pubpna/USO9B_PUBCOMB.seq:*
gn2_6/ptodata/1/pubpna/USO9B_PUBCOMB.seq:*
gn2_6/ptodata/1/pubpna/USO90_PUBCOMB.seq:*
gn2_6/ptodata/1/pubpna/USO0A_PUBCOMB.seq:*
gn2_6/ptodata/1/pubpna/USOB_PUBCOMB.seq:*
gn2_6/ptodata/1/pubpna/USOD_PUBCOMB.seq:*
gn2_6/ptodata/1/pubpna/USOD_PUBCOMB.seq:*
gn2_6/ptodata/1/pubpna/USOD_PUBCOMB.seq:*
gn2_6/ptodata/1/pubpna/USOD_PUBCOMB.seq:*
gn2_6/ptodata/1/pubpna/USOD_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                            _6/ptodata/1/pubpna/US08_NEW_PUB.seq:*
_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Xgapext
Ygapext
Fgapext
Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . . . . . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (without alignments)
1068.188 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10768316
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

																																																æ
•	4	4.	4	4.	4	4.		ي د	ى ر	بد	œ	ω	Ų	ω		C	<u>س</u>	N	Ŋ	Ŋ	Ņ		Ö	2	Ŋ	Ŋ	Ņ	ب	יַן		ū	<u>_</u>	ب	٠,	12	ا بـ	_				o (No.	Result
,												u	*5*	ω	N	_		φ	80	7	თ	51	4	ω	N	_	0	9			თ			w	N 1				ъ -	1 (אנ	л,		, ,	ى 1			r
:		•	•	٠	400.5	٠		•	3 3	2	400.5	414	420	420	423	460	470.5	4	484	486	486	486	493	493	496	593	w	673	8	•	•	83	868.5	961	1181	3	77) 	1080	٠.	4 6	ח מ	2 (א מ	2020	1	Score	
	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.	11:0		•	11.4	11.6	11.6	٠	12.7	13.0	13.1	13.3	13.4	13.4	13.4	13.6	13.6	13.7	16.3		8	8	19.8	21.3	ω	ω	٥.	32.5	! ۳	л :) ()	7. 2.	9 (л :	99.0		•	100.0	;	-	
	4	8	5460	46	5460	46		1	T 4 6 0	5460	σ	483	9	· iu	4	457	σ	N	an.	œ	83	g	0	503	N	361	417	399	401	545	505	540	568	tπ	2299		9201	1 1 1 1 1 1 1	1824	0.1	27	3;	ט ני	מ נ	2290	3 1 2 1 2 1	Length	
!	17	16	18	18	17	17	; ;	3 6	<u>,</u>	15	10	10	18	17	18	18	15	9	10	17	17	16	16	9	9								10	10	14	18	5 6	5 .	1,				18	- ;	10	. !	В	
	-10-133-937-6	-10-096-534-1	US-10-807-308-15	-10-474-794-22	-10-342-887-	-10-1/2-118-42	1/-120-/62-01-	70-100-101	-10-301-833-	-10-177-293-67	-09-918-715-	US-09-918-995-2865	-10-425-115	-10-425-114	-10-437-963-89	10-469-285	10-101-510-60	09-864-761-254	S-09-919-039-32	10-342-887-	2-118-18	10-029-386-	10-029-386-44	9-864-761-8728	-09-933-797-481	-09-960-352-	-09-960-352-	-09-864-761-2470	S-09-918-995-386	09-925-301-	-09-864-76	9-864-761-8	-09-918-995-9557	-09-918-995-	-10-198-846-9847	-10-425-115-18	-09-919-039-32	10.755.000.	IIS-10-439-703-58	-10-094-749-107	-09-822-830A-41	0-80F8-CCR-P0	-10-791-017A-1	717-911-178-90-	TIS-09-960-107-3769	00-00-107-376	ID	
	66.	equence 13, 1	e 15, ?	equence 225,	e 428,	e 428,	education / I	equence 32,	equence 30	9	equence 225,	(D)	42134,	e 31980,	89443	equence 488,	e 602,	25438,	ω, Έ	72,	equence 1872,	63,	ce 4463	8728, A	e 481,		10259,	2470	ce 3	equence 669,	equence 7766,	quence 8001, 1	equence 9557,	equence 27690,	984	182496	Ν,	7 (Sequence 10/1, Ap		equence 410	mience 49	equence 1.	emience 717. Ar	1081	2760 7	Description	,

ALIGNMENTS

US-09-880-107-3769

Sequence 3769, Application US/09880107 Patent No. US20020142981A1 GENERAL INFORMATION:

RESULT 1

```
APPLICANT: Horne, Darci T.
APPLICANT: Vockley, Joseph G.
APPLICANT: Vockley, Joseph G.
APPLICANT: Scherf, Uwe
APPLICANT: Gene Logic, Inc.
TITLE OF INVENTION: Gene Expression Profiles in Liver Cancer
FILE REFERENCE: 44921-5028-WO
CURRENT APPLICATION NUMBER: US/09/880,107
CURRENT FILING DATE: 2001-06-14
PRIOR APPLICATION NUMBER: US 60/211,379
PRIOR FILING DATE: 2000-06-14
PRIOR APPLICATION NUMBER: US 60/237,054
PRIOR APPLICATION NUMBER: US 60/237,054
PRIOR FILING DATE: 2000-10-02
NUMBER OF SEQ ID NOS: 3950
SOPTWARE: Patentin Ver. 2.1
```

```
밁
                                                                   중 유
                                                                                                           S
                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                   밁
                                                                                                                                                  5
                                                                                                                                                                       닭
                                                                                                                                                                                            S
                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                     ઈ
                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                        용
                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-791-017A-2 (1-656) x US-09-880-107-3769 (1-2390)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; OTHER INFORMATION: US-09-880-107-3769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 2390
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
                                                                                                              221
                                                                                             704
                                                                                                                                                         201
                                                                                                                                                                              584
                                                                                                                                                                                                  181
                                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                                               464
                                                                                                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                                                                        404
                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                344
                                                                                                                                                                                                                                                                                                                                                                     101
                                                                                                                                                                                                                                                                                                                                                                                         284
                                                                                                                                                                                                                                                                                                                                                                                                                                   224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  104 TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                             81
                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          44
                       TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                   GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                    ATGCAGCCAGTCACTGCACCTCCATCCTACCAGCTATTCCTCTACACAGCCG
                                                                                                                                                                                         MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                 ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                                                                                                                               ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                               TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MetAlaSerThrAspTyrSérThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                            GGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                         ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genbank
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3.66e-253
3633.00
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Accession
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  No. US20020142981A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  X66899
                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                          140
                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                         343
           883
                                                    823
                                                                                            763
                                                                                                                240
                                                                                                                                     703
                                                                                                                                                         220
                                                                                                                                                                             643
                                                                                                                                                                                                  200
                                                                                                                                                                                                                       583
                                                                                                                                                                                                                                                                523
                                                                                                                                                                                                                                                                                                        463
                                                                                                                                                                                                                                                                                                                                                403
                                                                                                                                                                                                                                                                                                                                                                                                             100
                                                                                                                                                                                                                                                                                                                                                                                                                                  283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    40
Ş
                   片
                                      S
                                                            밁
                                                                            δ
                                                                                                문
                                                                                                                     Ś
                                                                                                                                                              S
                                                                                                                                                                                       밁
                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                              밁
                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                       뭐
                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                              뫄
                                                                                                                                                                                                                                                                                                                                                        뫄
                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                         吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유정
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                    1904
                                                                                                                                               1724
                                                                                                                                                                                        1664
                                                                                                                                                                                                                                1604
                                                                                                                                                                                                                                                                                                                  1484
                                                                                                      1784
                                                                                                                                                                                                                                                                        1544
                                                                                                                                                                                                                                                                                                                                                          1424
                                                                                                                                                                                                                                                                                                                                                                                                                                          1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1004
                                                                                                                                                                                                                                                                                                                                                                                                  1364
                                                             1844
                                                                                 601
                                                                                                                                                                                                                                                   521
                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                       441
                                                                                                                                                                  561
                                                                                                                                                                                                                                                                                                                                                                             461
                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          281
                                                                                                    ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                          GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyFroGlyGly
                                                                                                                                                           GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                  AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                                           AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                   GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                             GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                  CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                 ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                             GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGG
                                                                                                                                               GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGAT
                                                                                                                                                                                                                                GACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGC
                                                                                                                                                                                                                                                                                                                  GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                     ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GATGAAGGACCAGATCTTGATCTAGGCCCTCCTGTAGATCCAGATGAAGACTCTGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLy8ProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                           CGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATG
                     1963
                                                             1903
                                                                                                       1843
                                                                                                                                                                                        1723
                                                                                                                                                                                                                                1663
                                                                                                                                                                                                                                                                        1603
                                                                                                                                                                                                                                                                                                                  1543
                                                                                                                                                                                                                                                                                                                                                           1483
                                                                                                                                                                                                                                                                                                                                                                                                  1423
                                                                                                                                                                                                                                                                                                                                                                                                                                           1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1003
                                                                                                                          600
                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                       460
                                                                                                                                                                                                                                                                                                                                                                                                                                                              440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       943
```

δ

\

344 ACCACTGCTACAGTCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACT 121 GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln 121 GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln 140 CAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCAGCCACCTGCACCTACAAGACCGCAG 141 AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln 142 AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln 143 AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln 144 GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAACTTAGCACAGGGGTTACCACGAG 151 ProSsrLeuglyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro 152 CCCAGCCTAGGATATCGACCAGGAGTAACTACAGTTATCCCCCAGGTACCTGGGAGCTACCCCC	Oy 61 TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro 80	Oy I MECALISSELINTASPLYYSERGINALAALAALAGINGINGIYYYSERIA 20 I MECALISSELINTASPLYTSERGINGINGIYYYSERIA 20 44 ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCT 103 Oy 21 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer 40	ed. No.: 3.66e-253 Length: 2390 ore: 3633.00 Matches: 656 rcent Similarity: 100.00% Conservative: 0 st Local Similarity: 100.00% Mismatches: 0 ery Match: 100.00% Indels: 0 : -10-791-017A-2 (1-656) x US-09-960-706-1081 (1-2390)	SOPTWARE: Patentin Ver. 2.1 SOPTWARE: Patentin Ver. 2.1 SENGTH: 2390 TYPE: DNA ORGANISM: Homo sapiens PEATURE: OTHER INFORMATION: Genbank Accession No. US20030134280A1 X66899 US-09-960-706-1081	TITLE OF INVENTION: Identifying Drugs for and Diagnosis of Benign Prostatic Hyperplas TITLE OF INVENTION: Gene Expression Profiles FILE REFERENCE: 44921-5029-01US CURRENT APPLICATION NUMBER: US/09/960,706 CURRENT FILING DATE: 2001-09-24 PRIOR APPLICATION NUMBER: 60/23,323 PRIOR FILING DATE: 2000-08-07 PRIOR APPLICATION NUMBER: 09/873,319 PRIOR FILING DATE: 2001-06-05 PRIOR FILING DATE: 2001-06-05 NUMBER OF SEQ ID NOS: 1124	GCGCAGAGATCGGCCTAC
Db 1424 ČĠTĠAĠĠĊĀĠĞĞĀTĠĊĀĊĠĊĀĊĠĊĞĠĠĠĠĊĊĀĠĠĠĠĠĊĊĀĠĠĠĠĠĊĊĀĠĠĠĠĠĊĊĀĠĠĠĠĠĊĊĀĠĠĠĠĠĊĊĀĠĠĠĠĠĊĊĀĠĠĠĠĠĊĊĀĠĠĠĠĠĊĊĀĠĠĠĠĠĊĊĀĠĠĠĠĠĊĊĀĠĠĠĠĠĊĊĀĠĠĠĠĠĊĊĀĠĠĠĠĠĊĊŢ 1483 Qy 481 GlyGlyProMetGlyArgMetGlyGlyArgGlyAspArgGlyGlyPheProProArg 500	Qy 441 LysValSerLeuAlaArgLysLysPresbyrights lyster 440 Qy 441 LysValSerLeuAlaArgLysLysProMetAsnSerMetArgGlyGlyLeuProPro 460	1124 AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATCTGGCAGACTTC 381 PheLysGlnCysGlyValValValLysMetAsnLysAxgThrGlyGlnProMetileHisile	Qy 321 ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet 340	Db 824 TACGGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGCAG 883 Qy 281 GluserGlyGlyPheserGlyGluAsnArgSerMetSerGlyProAspAsnArg 300	Qy 221 GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrClyGlnGlnProProThrSerTyr 240 Control C	181 MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro

Oy 1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaGlnGlnGlyTyrSerAla 20	### INFORMATION: Genbank Accession No. US2 #73-319-717 ##################################	CURRENT APPLICATION NUMBER: US/09/873,319A CURRENT FILING DATE: 2001-06-05 EARLIER APPLICATION NUMBER: US 60/223,323 EARLIER FILING DATE: 2000-08-07 NUMBER OF SEQ ID NOS: 755 SOPTWARE: Patentin Ver. 2.1 SEQ ID NO 717 LENGTH: 2390 TYPE: DNA ORGANISM: Homo sapiens FEATURE:	RESULT 3 US-09-873-319-717 Sequence 717, Application US/09873319A Publication No. US20030134324A1 GENERAL INFORMATION: APPLICANT: Kulkarni, Prakash APPLICANT: Getzenberg, Robert H. APPLICANT: Yamamoto, Jun APPLICANT: Yamamoto, Jun TITLE OF INVENTION: Identifying Drugs for and Diagnosis of Benign Prostatic TITLE OF INVENTION: Hyperplasia Using Gene Expression Profiles FILE REFERENCE: 44921-5029-US	Qy 621 ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly 640	Qy 581 ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg 600	Qy 541 AsnGlnCysLysAlaBroLysBroGluGlyPheLeuBroProProProProProProProProGly 560
Qy 361 SerAlaileTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe 380	Oy 301 GlyArgGlyArgGlyGlyPhAspArgGlyClyMetSerArgGlyGlyArgGlyGlyGlyGlyGlyGlyGlyGlyGlyGlyGlyGlyGlyG	764 CCACCCCAAACTGGATCCTACAGCCAAAGTCCAAGTCAATATAGCCAACAGAGCAGCAGC 261 TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln 261 TACGGCAGCAGAGTCATATAGCCAACAGAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCA	Qy 181 MetGlnProValThrAlaProProSerTyrFroProThrSerTyrSerSerThrGlnPro 200	Qy 141 AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln 160	Qy 101 ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr 120	Qy 61 TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro 80

```
TYPE: DNA
GRANISM: Homo sapiens
FEATURE:
NAME/KEY: CDS
LOCATION: (44)..(2011)
OTHER INFORMATION: EWS
US-10-791-017A-1
                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                               ঠ 🖁 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                   중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      र्
                                                                                                                                                                                                                                                                   RESULT 4
US-10-791-017A-1
                                                                                                                                                                                                                                                                                                    용
                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ş
  Percent Similarity:
                                 Alignment Scores:
                                                                                                                              Sequence 1, Application US/10791017A
publication No. US20040197827A1
GENERAL INFORMATION:
APPLICANT: JENAPHARM GmbH & Co. KG
TITLE OF INVENTION: Methods for Determining Hormonal Effects of Substances
FILE REFERENCE: Pat 3684/11
CURRENT APPLICATION NUMBER: US/10/791,017A
CURRENT FILING DATE: 2004-03-02
NUMBER OF SEQ ID NOS: 7
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 1
LENGTH: 2390
                        Х
О
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1304
                                                                                                                                                                                                                                                                                                                                                                                           1844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1544
                                                                                                                                                                                                                                                                                                  1964 AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCGCAGAGATCGGCCCTAC 2011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656
                                                                                                                                                                                                                                                                                                                                                            ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                                                                                                       GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGGTGGTCCCGGAATGTTCAGAGGTGGCCGTGGTGGAGAGACAGAGGTGGCTTCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGAGGAAGAGGTGGCCTCATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3.66e-253
3633.00
100.00%
Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                     1843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1423
                                                                                                                                                                                                                                                                                                                                               1963
                                                                                                                                                                                                                                                                                                                                                                     640
                                                                                                                                                                                                                                                                                                                                                                                           1903
                                                                                                                                                                                                                                                                                                                                                                                                              620
                                                                                                                                                                                                                                                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        460
                   S
                                           맑
                                                             δ
                                                                                  밁
                                                                                                       S
                                                                                                                               밁
                                                                                                                                                 5
                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity:
Query Match:
DB:
  밁
                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                      र्
                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                            몽
                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-791-017A-2 (1-656) x US-10-791-017A-1 (1-2390)
  1004
                     321
                                           944
                                                                                                                                                                                                                                                                  644
                                                                 301
                                                                                      884
                                                                                                            281
                                                                                                                                  824
                                                                                                                                                      261
                                                                                                                                                                            764
                                                                                                                                                                                                 241
                                                                                                                                                                                                                       704
                                                                                                                                                                                                                                           221
                                                                                                                                                                                                                                                                                        201
                                                                                                                                                                                                                                                                                                            584
                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                         524
                                                                                                                                                                                                                                                                                                                                                                              161
                                                                                                                                                                                                                                                                                                                                                                                                     464
                                                                                                                                                                                                                                                                                                                                                                                                                         141
                                                                                                                                                                                                                                                                                                                                                                                                                                               404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ThralaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet 340
                                                        GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGly
                                                                                                   GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                           GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                                                                                  MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro 200
                                                                                                                                                                                                                                                                                                                                                                     ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                                                                                                                                                                                                                                                                                 AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                                                                                       GAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCATGAGTGGCCCTGATAACCGG
                                                                                                                                  TACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAG
                                                                                                                                                TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                                                                                                                                                                                                                                                        CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCC
                                                                                                                                                                                                                                                                                                                                                                                                     GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGGTTACAACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCCACTGCACCTACAAGACCGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCT
                                           GGCAGGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGAGGA 1003
                                                                                                                                                                                                                                                                                                             ATGCAGCCAGTCACTGCACCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.00%
100.00%
18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                283
                                                                                       943
                                                                                                            300
                                                                                                                                  883
                                                                                                                                                                            823
                                                                                                                                                                                                 260
                                                                                                                                                                                                                       763
                                                                                                                                                                                                                                                                   703
                                                                                                                                                                                                                                                                                         220
                                                                                                                                                                                                                                                                                                               643
                                                                                                                                                                                                                                                                                                                                                         583
                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                     523
                                                                                                                                                                                                                                                                                                                                                                                                                          160
                                                                                                                                                                                                                                                                                                                                                                                                                                                463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
```

```
RESULT 5
US-09-822-830A-49/c
i Sequence 49, Application US/09822830A
patent No. US20020142952A1
i GENERAL INFORMATION:
APPLICANT: Genetics Institute, Inc.
i APPLICANT: Wong, Gordon G.
papelicant: Clark, Hilary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1184
                                                                                                                                                                                                                                              1844
                                                                                                                                                                                                                                                                                                                                                            1724
                                                                                                                                                                                                                                                                                                                                                                                                                   1664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             401
                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                               581
                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        461
                                                                                                                                LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                             GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                           GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                    AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ly8ValSerLeuAlaArgLy8Ly8ProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                    ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                            GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAGGTGGCCTCATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                   NACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProThrAlaLy8AlaAlaValGluTrpPheAspGlyLy8AspPheGlnGlySerLy8Leu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                              GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGG
                                                                                                                                                                                                                                                                                                      CGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGT
                                                                                                                                2011
                                                                                                                                                          656
                                                                                                                                                                                                                                                                                                      1843
                                                                                                                                                                                                                                                                                                                                                                                                                    1723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1303
                                                                                                                                                                                         1963
                                                                                                                                                                                                                                              1903
                                                                                                                                                                                                                                                                                                                                                            1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          380
                                                                                                                                                                                                                     640
                                                                                                                                                                                                                                                                          620
                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                        580
                                                                                                                                                                                                                                                                                                                                                                                                                                               560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                      Ş
                                                       밁
                                                                                   Ś
                                                                                                                 밁
                                                                                                                                       ঠ
                                                                                                                                                                         밁
                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                 멼
                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
    밁
                                                                                      181
                                                                                                                                             161
                                                                                                                                                                                                   141
                                                                                                                                                                                                                                                           121
                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                61
```

8 В

8 吊 중 음 중

밁

밁 ঠ 문 ঠ 밁 S 문 5 문 δ 밁

음 성 음

S

음 성 음

문 ঠ

ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTAT

```
APPLICANT: Fechtel, Kim
APPLICANT: AGOSTINO, Michael J.
APPLICANT: Howes, Steven H.
APPLICANT: Howes, Steven H.
APPLICANT: Resnick, Richard J.
APPLICANT: Graham, James R.
APPLICANT: Graham, James R.
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECURENT APPLICATION NUMBER: US/09/822,830A
CURRENT APPLICATION NUMBER: 05/95/804
CURRENT ETLING DATE: 2001-03-29
PRIOR APPLICATION NUMBER: 60/195,604
PRIOR FILING DATE: 2000-04-06
NUMBER OF SEG ID NOS: 631
SOFTWARE: Patentin Ver. 2.0
SEG ID NO 49
TENCHUP. 3776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; LENGTH: 2176
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-822-830A-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-791-017A-2 (1-656) x US-09-822-830A-49 (1-2176)
                                                                                                                                                           1741
                                                                                                                                                                                                                    1800
                                                                                                                                                                                                                                                                              1860
                                                                                                                                                                                                                                                                                                                                      1920
                                                                                                                                                                                                                                                                                                                                                                                               1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1621
                                                                                                  1681
                                                                                                                                                                                                                                                                                                        101
                                                                                                                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21
                                                                                                                                                           ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                         GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                                                                            ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                                                                                                                                                                                                                                                  ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                    CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCC
                                                                                                                   ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                                                                                    CAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCCACTGCACCTACAAGACCGCA-
                                                                                                                                                                                                                                                                                                                                      ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3.53e-251
3605.00
99.85%
99.85%
99.23%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
1
1
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SECRETED
                                                                                                                                                                                                                                                140
                                          1562
                                                                                                    1622
                                                                                                                                                            1682
                                                                                                                                                                                                                                                                              1801
                                                                                                                                                                                                                                                                                                                                      1861
                                                                                                                                                                                                                                                                                                                                                                   100
                                                                                                                                                                                                                                                                                                                                                                                                1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2101
                                                                                                                                                                                       160
                                                                                                                                                                                                                                                                                                                                                                                                                           80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40
```

8 8 8 8 8 8

음 성 음 성 음

```
1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   321
               481
                                          561
                                                                                                                        109
                                                                                                                                                                                                      501
                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                461
                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                      441
                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                       196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 401
                             GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                     GACTGGCAGTGTCCCAATCCGGGTTGTGGAAAACCAGAACTTCGCCTGGAGAACAGAGTGC
                                                                                                                                        AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                           GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                 GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                        ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                            Ly8ValSerLeuAlaArgLy8Ly8ProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                 ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                      TACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCACCCCAAACTGGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrglyGlnGlnProProThrSerTyr
              AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProProPheProProGly
                                                                                                                                                                                                                                                                                       CGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                 CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGTCTGGAGGATTTTCCGGACCAGGAGAGAAACCGGAGCATGAGTGGCCCTGATAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACGGGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAG
                                         580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    340
              422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1442
                                                                    482
                                                                                             560
                                                                                                                        542
                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                      460
                                                                                                                                                                                                                                                                                                                                                                                                                            440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         260
                                                                                                                                                                             602
                                                                                                                                                                                                      520
                                                                                                                                                                                                                                  662
                                                                                                                                                                                                                                                                                                                                           782
                                                                                                                                                                                                                                                                                                                                                                                                 842
                                                                                                                                                                                                                                                                                                                                                                                                                                                       902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    280
                                                                                                                                                                                                                                                                                       722
                     S
                                                                         S
                                                                                                       밁
                                                                                                                               Ś
                                                                                                                                                             밁
                                                                                                                                                                                  S
                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
밁
                                                     밁
                                                                                                                                                                                                                                                                                                                                                          Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                       2083
                                                                                                           2143
                                                                                                                                                                2203
 2023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     109
                          82
                                                                                                                                     42
                                                                                62
                                                                                                                                                                                           22
```

8 8 8 8 8 8 8 8 8

음 성 음

δ

8 8 8 8

문

밁

```
Sequence 410, Application US/09822830A
Patent No. US20020142952A1
GENERAL INFORMATION:
APPLICANT: Genetics Institute, Inc.
APPLICANT: Wong, Gordon G.
APPLICANT: Clark, Hilary
APPLICANT: Pechtel, Kim
APPLICANT: Agostino, Michael J.
APPLICANT: Howes, Steven H.
APPLICANT: Resnick, Richard J.
APPLICANT: Resnick, Richard J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 6
US-09-822-830A-410/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-822-830A-410
                                                                                                                                                                                                                                                                                                                                                                                                          US-10-791-017A-2 (1-656) x US-09-822-830A-410 (1-2273)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 410
LENGTH: 2273
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Agostino, Michael J.
APPLICANT: Howes, Steven H.
APPLICANT: Resnick, Richard J.
APPLICANT: Guldhota, Kamalakar
APPLICANT: Graham, James R.
TITLE OF INVENTION: POLYNUCLECTIDES ENCODING NOVEL SECRETED PROTEINS
FILE REFREENCE: GIN 6402
CURRENT APPLICATION NUMBER: US/09/822,830A
CURRENT FILING DATE: 2001-03-29
PRIOR APPLICATION NUMBER: 60/195,604
PRIOR FILING DATE: 2000-04-06
NUMBER OF SEQ ID NOS: 631
SCORMADER: DESCRIPT US-
                                                                                                                                                                                                                                                                                                                          581
                     AlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThrThr 101
                                                                                                        GlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrProThr
                                                                                                                                                                                    GlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThrTyr
                                                                                                                                                                                                                                                                     ThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
  GCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGGTATGGCACTGGTGCTTATGATACCACC
                                                                                                                                                               GGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACCTAT
                                                                                                                                                                                                                                             ACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAAGAGGACGTGGAGGACCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGTGGCCGGGGCATGGACCGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2.36e-242
3483.00
97.10%
97.10%
95.87%
                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                 2273
636
0
1
18
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         656
1964
                                                                              2024
                                                                                                                                                                                                                                                                                                                              2204
                                                                                                                      81
                                                                                                                                                               2084
                                                                                                                                                                                                                                             2144
                                                                                                                                                                                                                                                                                      41
                                                                                                                                                                                                                                                                                                                                                                      21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              362
                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 242
```

1423 TCTGGAGGATTTTCCCGGACCAGGAGGATGAGCATGAGTGGCCCTGATAACCGGGCC 1364 302 ArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyArg 321 1363 AGGGAAGAGGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGAGGAAGGA	102 ThrAleThrYalThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThrGln 121 1963 ACTGCTACAGTCACCACCCACCCAGGCCTCTATGCAGCTCAGTCTGCATATGGCACTCAGT 122 ProAlaTyrFroAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGlnAsp 141 1903 CCTGCTTATCCAGCCTATGGGCAGCCAGCCAGCCACTCAGCCTCACCTACAGCCCACTCAGGAT 1844 142 GlyAsnlysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGlnPro 161 143 GGAAACAAGCCCACTGAGACTAGTCAACCTCAAGTTACCACCTACAAGACCAGCCC 1784 162 SerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrProMet 181 1783 AGCCTAAGATATGGACAGTAACTACAGTTATCCCCAGGTACCTGGAAGCTACCACGAGT 1724 182 GlnProValThrAlaProProSerTyrProFoThrSerTyrSerSerThrGlnProThr 201 183 AGCCTAAGATATGGACAGTTACCTCCAAGTTATCCCCAGGTACCTGCAGAGCTACCCCATT 1724 184 ClnProValThrAlaProProSerTyrProFoThrSerTyrSerSerThrGlnProThr 201 172 CAGCCAGTACTGACCAGTTACTCCTACCAGTATTCCTCTACACAGCCGACT 1664 202 SerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyrGly 221 1663 AGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCAGCTGCCCCACTAGTACCCCATTGTACACTCAAGACAGCTATGGGCAACCAGCTAGTACCCCACTAGTACCCCACTAGTACCCAAGCTACCAGCTATGGGCAACCAGCTATGGTACAACAACCTATGGGCAACCAGCTAGTACCCCA 1544 222 GlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyrPro 241 1663 AGTTATGATCAGAGCAACACTCCAAGCTATGGGCAACCACCTCCCACCAGTTACCCCA 1544 222 GlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyrPro 241 1663 AGTTATGATCAGAGCCAACCTCCAAGCTCCAAGCCCCACCAGCTCCCACCAGCTAGCT
SULT 7 10-094-749-1074 Sequence 1074, App Publication No. US GENERAL INFORMATIO APPLICANT: SUGIY APPLICANT: OTSUK APPLICANT: SATO, APPLICANT: ISATO, APPLICANT: ISATO, APPLICANT: YAMAM APPLICANT: ISONO APPLICANT: NAGAI APPLICANT: YOSHI APPLICANT: MASUH TITLE OF INVENTIO FILE REFERENCE: 0 CURRENT APPLICATION PRIOR APPLICATION PRIOR APPLICATION PRIOR FILING DATE PRIOR FILING DATE PRIOR FILING DATE PRIOR FILING DATE ROSPTWARE: Patenti	Qy 462 GluGlyArgGlyMetErroProProProLeuArgGlyGlyProGlyGlyProGlyGlyProGlyGlyProGlyGlyProGlyGlyProGlyGlyProGlyGlyProGlyGlyProGlyGlyProGlyGlyProGlyGlyProGlyGlyProGlyGlyProGlyGlyProGlyGlyArgGlyArgGlyGlyArgGlyG

밁

음 성

문

밁 S 밁 S

밁

5 밁 Ş S

문

밁

δ 밁 5 밁 Ş 음 성

983

```
Best Local Similarity:
Query Match:
DB:
                                                                                     8 8 8 8
                                                                                                                                                               음 성 음
                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                      음 성
                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; SEQ ID NO 1074
; LENGTH: 1988
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-094-749-1074
                                  δ
                                                       음 성
                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-791-017A-2 (1-656) x US-10-094-749-1074 (1-1988)
                                                                                                                                444
                                                                                             504
                                                                                                                                                  201
                                                                                                                                                                    417
                                                        564
                                                                        241
                                                                                                             221
                                                                                                                                                                                      181
                                                                                                                                                                                                                                            416
                                                                                                                                                                                                                                                               141
                                                                                                                                                                                                                                                                                                                                        101
                                                                                                                                                                                                                                                                                                                                                           252
                                                                                                                                                                                                                                                                                                                                                                                                192
                                    261
                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                    132
                                                                                                                                                                                                                                                                                                                                                                            81
                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                     41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                           GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                                                                                                ThralaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                      ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                                                                                     GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                              TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                               ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTAT
                                                                                                                                                                                                                         ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                                                                                                                              AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                                                                                                                                                                                                                                                                              TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                        TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                            TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.55e-227
3277.00
91.31%
91.31%
90.20%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                        120
                   683
                                                        623
                                                                        260
                                                                                                                                503
                                                                                                                                                                    443
                                                                                                                                                                                      200
                                                                                                                                                                                                                                                                                                                                                                            100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        40
                                                                                                                                                 220
                                                                                                                                                                                                        416
                                                                                                                                                                                                                                                                                                                                                          311
                                                                                                                                                                                                                                                                                                                                                                                               251
                                                                                                                                                                                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                                                                                                                                                                                   191
                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뮍
        Ś
                             문
                                        S
                                                           문
                                                                             5
                                                                                                    밁
                                                                                                                δ
                                                                                                                                   밁
                                                                                                                                                     5
                                                                                                                                                                            문
                                                                                                                                                                                        S
                                                                                                                                                                                                                밁
                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                 닭
                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ·유 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     용
                                                                                                     1584
                                                                                                                                       1524
                                                                                                                                                                            1464
                                                                                                                                                                                                                  1404
                                                                                                                                                                                                                                                     1344
                                                                                                                                                                                                                                                                                                                                                                  1164
                                                                1644
                                                                                                                                                                                                                                                                                           1284
                                                                                                                                                                                                                                                                                                                              1224
                                                                                                                                                                                                                                                                                                                                                                                                       1104
                                                                                                                                                                                                                                                                                                                                                                                                                                            1044
641 LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                  601
                                                                                                                                                          561
                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                       501
                                                                                                                      581
                                                                                                                                                                                                                                                                                                                                               461
                                                                                                                                                                                                                                                                                                                                                                                     441
                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                             401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                744
                                                                                                                                        GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp 580
                                                                                                                                                                                                                AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                            GlyGlyArgGlyMetAspArgGlyGlyFheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                              ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                            GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                       ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                            LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                 ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                            TACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGTCTGGAGGATTTTCCGGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGG
                                                                 GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGG
                                                                                                     CGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGT
                                                                                                                                                                                                                                                                                                                               CGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCT
                                                                                                                                                                                                                                                                                                                                                                    ANAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGTGGTCTGCCACCC
                                                                                                                                                                                                                                                                                                                                                                                                        CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                            1103
                                                                 1703
                                                                                                     1643
                                                                                                                                         1583
                                                                                                                                                                             1523
                                                                                                                                                                                               560
                                                                                                                                                                                                                  1463
                                                                                                                                                                                                                                                       1403
                                                                                                                                                                                                                                                                                           1343
                                                                                                                                                                                                                                                                                                            500
                                                                                                                                                                                                                                                                                                                               1283
                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                    1223
                                                                                                                                                                                                                                                                                                                                                                                     460
                                                                                                                                                                                                                                                                                                                                                                                                        1163
                                                                                                                                                                                                                                                                                                                                                                                                                          440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  400
                                              640
                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     743
```

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                           밁
                                                                                                                                                     S
                                                                                                                                                                                      밁
                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                         δ
                                                                                                                                                                                                                                                                          ક
                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                          र्
                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; TYPE: DNA
; ORGANISM: Human ·
US-10-439-703-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-791-017A-2 (1-656) x US-10-439-703-58 (1-1824)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 58, Application US/10439703
Publication No. US20040018527A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Chang, Jenny
APPLICANT: O'Connell, Peter
TITLE OF INVENTION: Differential Patterns of Gene Expression that Predict for Docetax
TITLE OF INVENTION: Chemosensitivy and Chemoresistance
FILE REFERENCE: HO-P2482US1/10205813
CURRENT APPLICATION NUMBER: US/10/439,703
CURRENT APPLICATION NUMBER: US/03-05-16
PRIOR APPLICATION NUMBER: US 60/381,141
PRIOR APPLICATION NUMBER: US 60/381,141
RIOR FILING DATE: 2002-05-17
NUMBER OF SEQ ID NOS: 91
SOPTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 1824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          No.:
 463
                                178
                                                               415
                                                                                            158
                                                                                                                                                                                                                     118
                                                                                                                                                                                                                                                    319
                                                                                                                                                          138
                                                                                                                                                                                                                                                                                                                 280
                                                                                                                                                                                                                                                                                                                                                                              223
                                                                                                                                                                                                                                                                                                                                                                                                                                          187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    127 TACCCCACCCAGCCCGGCAGGGCTATTCCCCAGCAGAGCAGTCAGCCCTACGGACAGCAG
                                                                                                                                                                                                                                                                                  98
                                                                                                                                                                                                                                                                                                                                                                                                 60 ThrTyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProPro---ThrGlyTyrThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     40 SerTyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    79
                                                                                                                                                                                                                                                                                                                                                                            GGCTATGGCCAGAGCAGCTAT---TCTTCTTATGGCCAGAGCCAGAACACAGGCTATGGA
                                                                                      TyrAsnGlnProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGly
 AGCTACAGCCAGCAGCCT-----
                             SerTyrProMetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSer
                                                            TACGGTAGCAGTTCT-----CAGAGCAGCAGCTATGGGCAGCCCCAG---AGTGGG
                                                                                                                                                     ArgProGlnAspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGly
                                                                                                                                                                                      TyrGlyThrGlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThr 137
                                                                                                                                                                                                                                                                            TyrAspThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAla 117
                                                                                                                                                                                                                                                                                                                 ACTCAGTCAACTCCC
                                                                                                                                                                                                                                                                                                                                ThrProThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGly---ThrGlyAla
                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTTACAGTGGTTATAGCCAGTCCACGGAC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TyrThrAlaGlnProThrGlnGlyTyrAla---GlnThrThrGlnAlaTyrGlyGlnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGGCCTCAAACGATTATACC------CAACAAGCAACCCAAAGCTATGGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 1811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.52e-83
1282.00
53.81%
44.99%
35.29%
                                                                                                                                                                                                                                                  -----AGTAGCCAGAGCTCCCAATCGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative: Mismatches: Indels: Gaps:
                                                                                                                          ----CCCAGCAGCACCTCGGGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1824
301
59
153
156
30
AGCTATGGTGGA 492
                                                                                                                                                                                                                                                                                                                                                                                                                                        -----ACTTCA
                                                                                                                                                       157
                                                                                                                                                                                                                                                                                                                                                                            279
                                                          462
                                                                                                                          414
                                                                                                                                                                                                                                                                                                              318
                                                                                                                                                                                                                                                                                                                                             97
                                                                                                                                                                                                                                                                                                                                                                                                         78
                                                                                                                                                                                                                                                                                                                                                                                                                                        222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  126
             밁
                                     S
                                                                         맑
                                                                                                      á
                                                                                                                                        밁
                                                                                                                                                                 S
                                                                                                                                                                                                   문
                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                     F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                        1297
                                                                                                                                                                                                   1249
                                                                                                                                                                                                                                                                 1207
                                                                                                                                                                                                                                                                                                                              1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1030
                                                                                                                                                                                                                                                                                                                                                                                           1090
                                                                                                                                                                    494
                                                                                                                                                                                                                                   474
                                                                                                                                                                                                                                                                                               454
                                                                                                                                                                                                                                                                                                                                                            434
                                                                                                                                                                                                                                                                                                                                                                                                                        414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       198 ThrGlnProThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LeuAspAspLeuAlaAspPhePheLysGlnCysGlyValValLysMetAsnLysArgThr 393
                             PheAlaTrpArgThrGluCysAsnGlnCysLysAlaProLysProGluGlyPheLeuPro
                                                                                                                                                                                                                                                                                      MetArgGlyGlyLeuProProArgGluGlyArgGlyMetProProProLeuArgGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyGlnProMetIleHisIleTyrLeuAspLysGluThrGlyLysProLysGlyAspAla 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCGGCGGCGGCGGCGGTGGTTGCTTACAACCGCAGCAGTGGTGGCTATGAACCCAGA 804
                                                                                         AsnValGlnHisArgAlaGlyAspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsn
                                                                                                                                                                    ArgGlyGlyPheProProArgGlyProArgGlySerArgGlyAsnProSerGlyGlyGly
                                                                                                                                                                                                                             ProGlyGlyProGlyGlyProGlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAsp
                                                                                                                                                                                                                                                                  --- CGGGGTGGTGGCAATGGTCGTGGAGGCCGAGGG
                                                                                                                                                                                                                                                                                                                                                ThrValSerTyrGluAspProProThrAlaLysAlaAlaValGluTrpPheAspGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProAspGluAspSerAspAsnSerAlaIleTyrValGlnGlyLeuAsnAspSerValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AsnLysProGlyGlyProMetAspGluGlyProAspLeuAspLeuGlyProProValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyArgGlyGlyArgGlyGlyMetGlySerAlaGly-----GluArgGlyGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AspAsnArgGlyArgGlyArgGlyPheAspArg-----GlyGlyMetSerArgGly
                                                                                                                                        CGAGGAGGATTTCCCAGTGGAGGT-----
                                                                                                                                                                                                                                                                                                                           GAATTCTCCGGAAATCCTATCAAGGTCTCATTTGCTACTCGCCGGGCAGACTTTAAT--- 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAACAGGATAATTCAGACAACAACACCATCTTTGTGCAAGGCCTGGGTGAGAATGTTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATAAATTTGGTGGCCCTCGGGACCAAGGATCACGTCATGAC-----TCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGTCGTGGAGGTGGAGGCAGAGGTGGCATGGGCGAAGTGACCGTGGTGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATEGACAGCAGGACCGTGGA------GGCCGCGGCAGGGGGTGGCAGTGGT---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TyrGlyGlnGluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyPro 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTGGCAGTGGTGGCGGTTATGGCAATCAAGACCAGAGTGGTGGAGGTGGCAGCGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SerSerSerTyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyVal 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ThrserTyrProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGGCTATGGACAGCAGAACCAGTACAACAGCAGTGGTGGTGGAGGTGGAGGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----CAGCAGCAAAGCTATGGACAGCAAGCAAAGCTATAATCCCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGTAACTATGGCCAAGATCAATCCTCCATGAGTAGTGGT
                                                                                                                                                                                                   -GGCAGTGGTGGTGGC 1296
                                                                                                                                       GGTGGCGGT
                                                                                                                                                                                                                                                               CGAGGAGGA
                                           553
                                                                                                                                                                                                                                                                 1248
                                                                                                                                                                                                                                                                                                                                                                                         1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1089
                                                                                                                                                                                                                                                                                              473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1029
                                                                          1389
                                                                                                                                                                    513
                                                                                                                                                                                                                                  493
                                                                                                                                                                                                                                                                                                                                                            453
                                                                                                                                                                                                                                                                                                                                                                                                                        433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       237
                1440
```

Qy 60 ThrTyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThr 79	Qy 40 SerTyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAla 59		1 63	7 Match: 35.27% Indels: Gaps: 0-791-017A-2 (1-656) x US-10-755-889-649 (1-1822)	P P	ORGANISM: Homo sapiens US-10-755-889-649 Alignment Scores:	nti	; PRIOR FILING DATE: 2003-01-14 ; PRIOR APPLICATION NUMBER: U.S. 60/469,757 ; PRIOR FILING DATE: 2003-05-12 ; NUMBER OF SEQ ID NOS: 823	; FILE REFERENCE: D0284 NP; CURRENT APPLICATION NUMBER: US/10/755,889; CURRENT FILING DATE: 2004-01-13; PRIOR APPLICATION NUMBER: U.S. 60/440,068	GENERAL INFORMATION: APPLICANT: Bristol-Myers Squibb Company ITITLE OF INVENTION: PATHWAY TITLE OF INVENTION: PATHWAY	RESULT 9 US-10-755-889-649 / Sequence 649, Application US/10755889 / Publication No. US20040171823A1	Qy 648 ArgGlmGluArgArgAspArgProTyr 656 ::: Db 1630 AGACAGGATCGCAGGAGAGGCCGTAT 1656	Qy 629 MetGlyGlyArgArgGlyGlyArgGlyGlyProGlyLy8MetAspLy8GlyGluHis 647	Cy 609 GlyPheGlyGlyArgArgGlyGlyProGlyGlyProFroGlyProLeuMetGluGln 628 Db 1591 GGCTTT	1531 CGGGCCGCGGGGGGACCCTGGAGGCTCCGAGGGGCCGGGGTGGTGGGGACAGAGGT	609GlyargGlyGlyagargGlyGlyPheArgGlyGlyArgGlyMetAgargGly 608	Qy 573 GlyGlyArgGlyGlyEeuMetAspArgGlyGlyBroGlyGlyMetPheArgGly 590	Qy 554 ProProPheProProProGlyGlyAspArgGlyArgGlyGlyProGlyGlyMetArg 572
୍ଟ ନ	S B 2	S B 8	₽ <i>Q</i>	g 9	р <i>Q</i>	B &	Db Qy	94 A	g Q	О Q У	gb Qy	D Q	g Q	B &	ф	Ś	문 <i>성</i>	B &
:::::: :::	393 GILFIONECTIENTETTETTETTETTETTETTETTETTETTETTETTETTE		355 AspGluAspSerAspAsnSerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeu 374 :::::: :::	335 LysProGlyGlyProMetAspGluGlyProAspLeuAspLeuGlyProProValAspPro 354	317 ArgGlyGlyArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsn 334	299 AsmArgGlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGly 316	279 GlyGlnGluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAsp 298	259 SerSerTyrGlyGlnGlnSerSerPheArgGlnAepHisProSerSerMetGlyValTyr 278	239 SerTyrProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSer 258 :::	219 SerTyrGlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThr 238	199 GlnProThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSer 218	179 TyrProMetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThr 198	159 AsnGlnProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySer 178	139 ProGlnAspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyr 158	GGGCAGCAGTCCTATCCTGGCTATGGCCAGCAGCAGCT	119 GlyThrGlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArg 138	99 AspThrThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyr 118 	80 ProThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyr 98 :::

NAME/KEY: misc_feature NAME/KEY: misc_feature OTHER INFORMATION: Incyte ID No. US20030108871A1 478620.53 US-09-919-039-322 Alignment Scores: Pred. No.: 6.61e-83		RESULT 10 US-09-919-039-322 ; Sequence 322, Application US/09919039 ; Publication No. US20030108871A1 ; GENERAL INFORMATION: ; APPLICANT: Kaser, Matthew R. ; TITLE OF INVENTION: GENES EXPRESSED IN TREATED HUMAN C3A LIVER CELL CULTURES ; FILE REFERENCE: PA-0035 US	Qy 649 GlnGluArgArgAspArgProTyr 656 ::: ::	Qy 630 GlyGlyArgArgGlyGlyArgGlyGlyProGlyLysMetAspLysGlyGluHisArg 648	Qy 610 PheGlyGlyGlyArgArgGlyGlyProGlyGlyProFroGlyProLeuMetGluGlnMet 629	Oy 591 GlyargGlyGlyAspArgGlyGlyPheArgGlyGlyArgGlyMetAspArgGlyGly 609	Qy 574 GlyArgGlyGlyLeumetAspArgGlyGlyProGlyGlyMetPheArgGly 590	Qy 555 ProPheProProGlyGlyAspArgGlyArgGlyGlyProGlyGlyMetArgGly 573	Qy 535 AlaTzpArgThrGluCysAsnGlnCysLysAlaProLysBroGluGlyPheLeuProPro 554	Qy 515 ValGlnHisArgAlaGlyAspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPhe 534	Qy 495 GlyGlyPheProProArgGlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsn 514	Qy 475 GlyGlyProGlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArg 494	::: ::: :::::::
Db 702 TATGACAGCAGGACCGTGA	Qy 238 ThrSerTyrProProGlnThrQlySerTyrSerGlnAlaProSerGlnTyrSerGlnGln 257 : :		Qy 178 SerTyrProMetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSer 197 100	Qy 158 TyrAsnGlnProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGly 177	Qy 138 ArgProGlnAspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGly 157	Qy 118 TyrGlyThrGlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThr 137	Qy 98 TyrAspThrThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAla 117	Qy 79 ThrProThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAla 97	Qy 60 ThrTyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThr 78	Qy 40 SerTyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAla 59	Qy 21 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGln 39	Qy 1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla 20	Percent Similarity: 53.96% Conservative: 60 Best Local Similarity: 44.99% Mismatches: 153 Query Match: 35.05% Indels: 156 DB: 10 Gaps: 30 US-10-791-017A-2 (1-656) x US-09-919-039-322 (1-1939)

문 δ 밁 S

ક 밁 S

```
RESULT 11
US-10-425-115-182496
; Sequence 182496, Application
                                                                                                                                                                                                                                                                                                                                                     1473
                                                                                                                                                                                                                                                                                  1533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1032
                                                                                                                                                                                                                                                                                                                                                                                      573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             454
                                                                   648 ArgGlnGluArgArgAspArgProTyr 656
|||||||:::||||||:::|||||||||
1632 AGACAGGATCGCAGGGAGAGGCCGTAT 1658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 414 ThrValSerTyrGluAspProProThrAlaLysAlaAlaValGluTrpPheAspGlyLys
|||||||||:::::|||||||||||
| ACGGTCTCTTTGATGACCCACCTTCAGCTAAAGCAGCTATTGACTGGTTTGATGGTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                912 GAACAGGATAATTCAGACAACAACACCATCTTTGTGCAAGGCCTGGGTGAGAATGTTACA
                                                                                                                                                                                                                                                                            GlyGlnProMetIleHisIleTyrLeuAspLysGluThrGlyLysProLysGlyAspAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuAspAspLeuAlaAspPhePheLysGlnCysGlyValValLysMetAsnLysArgThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProAspGluAspSerAspAsnSerAlaIleTyrValGlnGlyLeuAsnAspSerValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AsnValGlnHisArgAlaGlyAspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABnLysProGlyGlyProMetAspGluGlyProAspLeuAspLeuGlyProProValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PheAlaTrpArgThrGluCysAsnGlnCysLysAlaProLysProGluGlyPheLeuPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ArgGlyGlyPheProProArgGlyProArgGlySerArgGlyAsnProSerGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCATGGGCCGTGGAGGCTATGGAGGTGGT---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            --- CGGGGTGGTGGCAATGGTCGTGGAGGCCGAGGG-----CGAGGAGGA
                                                                                                                                                               MetGlyGlyArgArgGlyGlyArgGlyGlyProGlyLysMetAsp----LysGlyGluHis
                                                                                                                                                                                                                                            GlyPheGlyGlyGlyArgArgGlyGlyProGlyGlyProProGlyProLeuMetGluGln
                                                                                                                                                                                                                                                                                                                                                   GGGGGTAACTACGGGGATGATCGTCGTGGTGGCAGAGGAGGCTATGATCGAGGCGGCTAC
                                                                                                                                                                                                                                                                                                                                                                                    GlyGlyArgGlyGlyLeuMetAspArgGlyGlyProGlyGlyMetPheArgGly-----
                                                                                                                                                                                                                                                                                                                                                                                                                                           ProProPheProProGlyGlyAspArgGlyArgGlyGlyProGlyGlyMetArg---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAGGACAGCAGCGAGCTGGTGACTGGAAGTGTCCTAATCCCACCTGTGAGAATATGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGAGGAGGATTTCCCCAGTGGAGGT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProGlyGlyProGlyGlyProGlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MetArgGlyGlyLeuProProArgGluGlyArgGlyMetProProProLeuArgGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAATTCTCCGGAAATCCTATCAAGGTCTCATTTGCTACTCGCCGGGCAGACTTTAAT---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AspPheGlnGlySerLysLeuLysValSerLeuAlaArgLysLysProProMetAsnSer 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGACAGCCCATGATTAATTTGTACACAGACAGGGAAACTGGCAAGCTGAAGGGAGAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATAAATTTGGTGGCCCTCGGGACCAAGGATCACGTCATGAC------TCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTCGTGGAGGTGGCCGTGGAGGCAGAGGTGGCATGGGCGGAAGTGACCGTGGTGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCTCTTGGAGGAATGAATGCAACCAGTGTAAAGGCCCCTAAACCAGATGGC------
   US/10425115
                                                                                                                                           GGCCCTGGCAAGATGGATTCCAGGGGTGAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                       GGGGGACCAGGTGGCTCTCACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ------GTGGCGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -GGCAGTGGTGGTGGC 1298
                                                                                                                                          1631
                                                                                                                                                                                                                                                                                1592
                                                                                                                                                                                                                                                                                                                                                   1532
                                                                                                                                                                                                                                                                                                                                                                                                                        1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1031
                                                                                                                                                                          647
                                                                                                                                                                                                                                              628
                                                                                                                                                                                                                                                                                                                   608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     866
                                                                                                                                                                                                             1598
                                                                                                                                                                                                                                                                                                                                                                                      590
                                                                                                                                                                                                                                                                                                                                                                                                                                                           572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:

APPLICANT: La Rosa, Thomas J.

APPLICANT: Kovalic, David K.

APPLICANT: Kovalic, David K.

APPLICANT: Cao, Yongwei

TITLE OF INVENTION: Nucleic Acid Molecules and
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(53222)B

CURRENT APPLICATION NUMBER: US/10/425,115

CURRENT FILING DATE: 2003-04-28

NUMBER OF SEQ ID NOS: 369326

SEQ ID NO 182496

LENGTH: 763
                           ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; FEATURE:
; NAME/KEY: unsure
; LOCATION: (1)..(763)
; OTHER INFORMATION: unsure at all n locations
; FEATURE;
; OTHER INFORMATION: Clone ID: MRT4577_98018C.1
US-10-425-115-182496
 뭉
                                                                   밁
                                                                                              S
                                                                                                                                  뫄
                                                                                                                                                                 ક
                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-791-017A-2 (1-656) x US-10-425-115-182496 (1-763)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Publication No. US20040214272A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Zea mays
                                                                                                                                                                                                                                                                                360
                                  181
                                                                                                     161
                                                                                                                                        480
                                                                                                                                                                        141
                                                                                                                                                                                                             420
                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                 101
                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41
                                                                                                                                                                                                                                                                                                                                                                                  81
                                                                                                                                                                                                                                                                                                                                                                                                                                                         19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                       TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                     MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                       ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                            AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                                                                                                                 GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                                                                                    ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                                                                                                                                                                                                                                                                       ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                          GATGGTAACAAGCCTGCTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTATAACCAA
                                                                                                                                                                                                             CAGCCTGCCTACCCCACCTATGGCCAGCCAGCCAACAGCCACCGCACCTACCAGACCACAG
                                                                                                                                                                                                                                                                              ACCACTGCTACAGTCACCACACACGCAGGCCTCTTACGCAGCTCAGACTGCATATGGCACC
                                                                                                                                                                                                                                                                                                                                                   ACTGCCCCGCAGGCGTACAGCCAGCCTGTGCAGGGCTATGGCACTGGGACTTATGACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATGGAACCTATGGACAGCCTACTGATGTCAGCTATACTCAGGCTCAGACCACTGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACACCGCCCAGCCAACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGGCGTCCACGGATTACAGTACCTATAGTCAAGCTGCAGCCCAGCAGGGCTACAGTGCT
   ATGCAGCCAGTCACCGCACCTCCATCTTATCCTCCTACCAGCTACTCCTCTTCACAGCCG
                                                                     CCCAGCCTAGGATATGGACAGAGTAACTACAGCTATCCCCAGGTACCTGGGAGCTACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2.43e-79
1219.00
97.86%
96.15%
33.55%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Other Molecules
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Associated
                                                                                                                                                                                                                                                                                419
                                  200
                                                                      599
                                                                                                       180
                                                                                                                                          539
                                                                                                                                                                          160
                                                                                                                                                                                                               479
                                                                                                                                                                                                                                              140
                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                     359
                                                                                                                                                                                                                                                                                                                                                                                                                          299
                                                                                                                                                                                                                                                                                                                                                                                                                                                           80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  With
```

δ

맑

र् 밁

밁

S 밁 ફ 밁 ð

유 밁 श् 밁

8 8 8

밁 श् 유 &

밁 ঠ

δ 밁

```
CURRENT APPLICATION NUMBER: US/10/198,846
CURRENT FILING DATE: 2002-07-18
PRIOR APPLICATION NUMBER: 60/306,220
PRIOR FILING DATE: 2001-07-18
NUMBER OF SEQ ID NOS: 14084
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 9847
LENGTH: 2299
TYPE: DNA
ORGANISM: Homo sapiens
US-10-198-846-9847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                      밁
                                                                 ঠ
                                                                                                            뭐
                                                                                                                                               S
                                                                                                                                                                                      日
                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-198-846-9847; Sequence 9847, Application US/10198846; Publication No. US20030099974A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                         ક
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-791-017A-2 (1-656) x US-10-198-846-9847 (1-2299)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Lillie, James
APPLICANT: Xu, Yongyao
APPLICANT: Wang, Youzhen
APPLICANT: Wang, Youzhen
APPLICANT: Steinmann, Kathleen
TITLE OF INVENTION: MOVEL GENES, COMPOSITIONS, KITS,
TITLE OF INVENTION: FOR IDENTIFICATION, ASSESSMENT,
TITLE OF INVENTION: THERAPY OF BREAST CANCER
FILE REFERENCE: MRI-049
FILE REFERENCE: MRI-049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     338 GlyProMetAspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAsp 357
                                                                                                                                                                                        1312
                                                                                                                                                                                                                                                                1252
                                                                                                                                                                                                                                                                                                                                         1192 GCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                 1132 TCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTG
                                                                     458 LeuProProArgGluGlyArgGlyMetProProLeuArgGlyGlyProGlyGlyPro
                                                                                                                                   438 SerLysLeuLysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGly
                                                                                                                                                                                                             418 GluAspProProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGinGly 437
                                                                                                                                                                                                                                                                                     398 | IleHisIleTyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                      358 SerAspAsnSerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeu
478 GlyGlyProGlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPhe 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 221 GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGln 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  201 ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                        GAAGACCCACCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGG
                                                                                                                                                                                                                                                                ATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCCAAAGGCGATGCCACAGTGTCCTAT
                                                                                                                                                                                                                                                                                                                                                             AlaAspPhePheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAG 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTAGNTACGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAGCCGAGCAGCTAT 719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3.67e-76
1181.00
66.07%
66.07%
32.51%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2299
222
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AND METHODS PREVENTION,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AND
                                                                         477
                                                                                                                1431
                                                                                                                                                 457
                                                                                                                                                                                        1371
                                                                                                                                                                                                                                                                1311
                                                                                                                                                                                                                                                                                                                                         1251
                                                                                                                                                                                                                                                                                                                                                                                                               1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1131
                                      1491
                                                                                                                                                                                                                                                                                                   417
                                                                                                                                                                                                                                                                                                                                                                          397
                                                                                                                                                                                                                                                                                                                                                                                                                                                      377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    220
 US-10-791-017A-2 (1-656) x US-09-918-995-27690 (1-550)
```

	ٺ	09-918-995-27690 (1-550	A-2 (1-656) x US-	10-791-017	-sn
	550 166 4	Length: Matches: Conservative: Mismatches: Indels: Gaps:	7.63e- 961.00 97.65% 97.65% 26.45%	nent No.: nt si Local	Align Pred. Score Perces Best l Query DB:
		,C or G	KEY: misc_feature TON: (1)(550) INFORMATION: n = A,T -995-27690	NAME/KEY: LOCATION: COTHER INFO 09-918-995	us-
			550 A : Homo sapiens	TYPE: DNA ORGANISM:	
		ws Version 3.0	SEQ ID NOS: 38054 : FastSEQ for Windo 27690	NUMBER OF SOFTWARE: SEQ ID NO 2	ζΩ.
		7-30 /09/235,076	ENT FILING DATE: 2001-07-30 R APPLICATION NUMBER: US/09/2 R FILING DATE: 1999-01-20	CURRENT FI PRIOR APPL PRIOR FILI	
	OBTAINED	CLEIC ACID SEQUENCES RIOUS CDNA LIBRARIES	NOVEL FROM 11-756	TITLE OF I	
		<i>IS</i> /09918995 3A1	SULT 13 -09-918-995-27690 Sequence 27690, Application US/ Selication No. US20030073623A1 GENERAL INFORMATION: APPLICANT: HYREG. Inc.	SULT 13 -09-918-995-27690 Sequence 27690, Appl Publication No. US20 GENERAL INFORMATION: APPLICANT: HYBEG, I	RESULT US-09-: ; Seque ; Publ: ; GENEI
	ProProGly 560 CCCCCGGGT 2078	AlabroLysbroGluGlyPheLeuProBroBroPheProProBroGly 		545 2031	유 성
2030	AACCAGTGTAAG	JAAACCAGAACTTCGCCTGGAGA	GTATGCAGGGGTTG	1971	Дb
544	9Ly8	sGlyAsnGlnAsnPheAlaTrpArgThrGluCysAsnGlnCy	cy	529	Ś
1970	-	CACCACCTTTCCTTGTTTATCTTCCTTAGTTCAATTGGTGATTTCTGCTGTGATGTAATT		1911	뮍
528				528	§
1910		tgtgccctaaagcatgggtgtacatagatcctcttgatagtgagtg		1851	뮍
528				528	Ş
1850		GCTTCAGAGCCTTCTGAAGATTGATTTGACCTGTCCTGT		1791	皮
528				528	á
1790		gaggaacagaatgatgaccctgatggctggttagggacactagtcagccattcactggac		1731	뮍
528				528	Ş.
1730		TACGAGTGAAGCCACCCTTCCCTCACCCCCATCCCCACTCTAGAGTGGATTGCTCTGTCTA		1671	뭕
528				528	Ş
0 1	TTGGCAAATTGATACCC	GTCCCAATCCGTA-	CGAGCTGGAGACTGGC	1612	문 4
528	; ; ; ; ; ; ; ; ; ;	nCvaProAanProG v	ArgAlag	518	5
517 1611	lyGlyAsnValGlnHis 	.rgGlyProArgGlySerArgGlyAsnProSerGlyG 	ProProA	498 1552	음 성
1551		GGAGGTCCTGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTC		1492	망

```
Sequence 9557, Application US/09918995
Publication No. US20030073623A1
GENERAL INFORMATION:
APPLICANT: Hyseq, Inc.
TITLE OF INVENTION: NOVEL NUCLEIC ACID SEQUENCES OF TITLE OF INVENTION: FROM VARIOUS CDNA LIBRARIES FILE REFERENCE: 20411-756
CURRENT APPLICATION NUMBER: US/09/918,995
CURRENT APPLICATION NUMBER: US/09/918,995
CURRENT FILING DATE: 2001-07-30
PRIOR APPLICATION NUMBER: US/09/235,076
PRIOR FILING DATE: 1999-01-20
NUMBER OF SEQ ID NOS: 38054
                                                               Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 14
US-09-918-995-9557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ર્ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
 ঠ
                                                                                                                              Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ર્
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                              US-10-791-017A-2 (1-656) x US-09-918-995-9557 (1-568)
                                                                                                                                                        Alignment Scores:
                                                                                                                                                                                          US-09-918-995-9557
                                                                                                                                           Pred. No.:
                                                                                                                                                                                                                                                                                              SOPTWARE: FastSEQ for Windows Version SEQ ID NO 9557 LENGTH: 568
                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc_feature
LOCATION: (1)...(568)
OTHER INFORMATION: n = I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            477
307 PheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyArgGlyGlyMetGlySer 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100 GGTCTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGTGGCTTCCGTGGTGGCCGGGGCATGGAC 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PheProProArgGlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ProGlyGlyProGlyGlyProMetGlyArgMetGlyGlyArgGlyGlyGlyAspArgGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGAGCAAACTTANAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyGlyPheArgGlyGlyArgGlyMetAsp 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyLeuProProArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCCTCATGGATCGTGGTCCCCGGTGGAATGTTCATAGGTGGCCGTGGTGGAGACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlyLeuMetAspArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProProProGlyGlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ArgThrGluCysAsnGlnCysLysAlaProLysProGluGlyPheLeuProProPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACCGAGCTGGAGACTGGCAGTGTCCCAATCCGGGTTGTGGAAAACCAGAACTTCGCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      H18ArgAlaGlyAspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCCCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGGAGGTCCTGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlySerLysLeuLysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGAACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTTGAAGGCTTCCTCCCGCCACCCTTT
                                                                                                                                                                                                     N: n =
                                                               3.74e-54
868.50
97.08%
97.08%
23.91%
                                                                                                                                                                                                       A,T,C
                                                                                                                                                                                                     å
                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                               Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        OBTAINED
                                                             166
166
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 456
```

```
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY FILE REPERBENCE: Acomica-X-1 CURRENT EPILICATION NUMBER: US/09/864,761 CURRENT PILING DATE: 2001-05-23 PRIOR FILING DATE: 2001-05-23 PRIOR PILING DATE: 2000-02-04 PRIOR FILING DATE: 2000-02-04 PRIOR FILING DATE: 2000-05-26 PRIOR FILING DATE: 2000-05-26 PRIOR FILING DATE: 2000-05-26 PRIOR FILING DATE: 2000-05-26 PRIOR FILING DATE: 2000-08-03 PRIOR APPLICATION NUMBER: US 09/632,366 PRIOR FILING DATE: 2000-00-04 PRIOR FILING DATE: 2000-09-07 PRIOR FILING DATE: 2000-09-27 PRIOR FILING DATE: 2000-09-27 PRIOR APPLICATION NUMBER: PCT/US01/00666 PRIOR FILING DATE: 2001-01-30 PRIOR APPLICATION NUMBER: PCT/US01/00667 PRIOR APPLICATION NUMBER: PCT/US01/00667 PRIOR APPLICATION NUMBER: PCT/US01/00667 PRIOR APPLICATION NUMBER: PCT/US01/00667 PRIOR APPLICATION NUMBER: PCT/US01/00668 PRIOR FILING DATE: 2001-01-30 PRIOR APPLICATION NUMBER: PCT/US01/00669 PRIOR APPLICATION NUMBER: PCT/US01/00669 PRIOR APPLICATION NUMBER: PCT/US01/00669 PRIOR APPLICATION NUMBER: PCT/US01/00665 PRIOR APPLICATION PRIOR 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 15
US-09-864-761-8001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 8001, Application US/09864761 Patent No. US20020048763A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             327 AlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMetAspGluGlyProAspLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ProProProLeuArgGlyGlyProGlyGlyPro 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LysLysProProMetAsnSerMetArgGlyGlyLeuProProArgGluGlyArgGlyMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeuLysValSerLeuAlaArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyLysProLysGlyAspAlaThrValSerTyrGluAspProProThrAlaLysAlaAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ValLysMetAsnLysArgThrGlyGlnProMetIleHisIleTyrLeuAspLysGluThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AspLeuGlyProProValAspProAspGluAspSerAspAsnSerAlaIleTyrValGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTGATCGTGGACGCATGAGCAGAGGTGGGCGGTGGAATGGGC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCACCACCACTTTCGTGAGGTCCAGGAGGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGAAGCCTCCAATGAACAGTATGCG-GGTGGGCTGCCACCCCGTGAGGGCAGAGGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTTAAAGTCTCCCTTGCTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAGGAAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhePheLysGlnCysGlyVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATCTAGGCCCACCTGTAGATCCAGATGAAAGACTCTGACAACAGTGCAATTTATGTACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAAGGACCAGATCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGTGGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   232
```

```
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
ORGANISM: Homo sapiens
FEATURE:
FEATURE:
OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 2.1
OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 2.8
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 3.4
OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 3.4
OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 4.1
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2.4
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 2.9
OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 2.9
OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 2.9
OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 1.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-791-017A-2 (1-656) x US-09-864-761-8001 (1-540)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: PCT/US01/00662
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00661
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00670
PRIOR APPLICATION NUMBER: US 60/234,687
PRIOR APPLICATION NUMBER: US 60/234,687
PRIOR FILING DATE: 2000-09-21
PRIOR APPLICATION NUMBER: US 09/608,408
PRIOR APPLICATION NUMBER: US 09/704,203
PRIOR FILING DATE: 2000-06-30
PRIOR APPLICATION NUMBER: US 09/774,203
PRIOR FILING DATE: 2001-01-29
NUMBER OF SEQ ID NOS: 49117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Annomax Sequence Listing Engine vers. SEQ ID NO 8001 LENGTH: 540
                                                462
                                                                             141 AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                             402
                                                                                                                                                                     121 GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                       342
                                                                                                                                                                                                                                                                 101 ThrThrAlaThrValThrThrGinAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr 120
                                                                                                                                                                                                                                                                                                                                   282
                                                                                                                                                                                                                                                                                                                                                                                                                           222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21 TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       162 TATGGAACCTATGGACAGCCCATTGATGTCAGCTATACCCCAGGCTCAGACCACTGCAATC
                                                                                                                                                                                                                                                                                                                                                           81 ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41 TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
.|||||||
.||||||||
42 ATGGCATCCATGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGCAGGGCTACAGTGCT
ProSerLeuGlyTyrGly 166
                                                AATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGGTTACAACCAG
                                                                                                                                        CAGCCTGCTTATCCAGCTTATGGGCAGCAGCCAGTAGCCACTGCACCTACAAGACTGCAG
                                                                                                                                                                                                                                       ACCACTGCTACAGTCACCACCACCAGGCCTCCTATGCAGCTCAATCTGCATATGGCACT
                                                                                                                                                                                                                                                                                                                                 ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC
                                                                                                                                                                                                                                                                                                                                                                                                                           TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4.82e-52
839.00
95.78%
95.18%
23.09%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     221
                                                521
                                                                                          160
                                                                                                                                          461
                                                                                                                                                                                        140
                                                                                                                                                                                                                                                                                                                              341
                                                                                                                                                                                                                                                                                                                                                                                                                           281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20
                                                                                                                                                                                                                                       401
```

र्

S 뭐

> 밁 522 CCCAGCCTAGGATATGGA 539

Search completed: February 21, 2005, Job time: 3670.78 secs 08:39:34

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                          Command line parameters:

-MODEL-frame+_p2n.model -DEV=xlp
-MODEL-frame+_p2n.model -DEV=xlp
-Q=/cgn2_1/USPTO_epool_p/US10791017/runat_17022005_125807_22086/app_query.fasta_1.1358
-DB=EST _QFWT=fastep -SUFFIX=p2n.rst -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0
-UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-DOCALIGN=200 -THR_SCORE=pct -THR MAX=100 -THR MIN=0 -ALICN=15 -MODE=LOCAL
-OUTFWT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000
-USER=US10791017_@CGN_1 1_6628_@runat_17022005_125807_22086 -NCPU=6 -ICPU=3
-NO_WMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THRADS=1 -XGAPEXT=0.5 -FGAPOP=6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                              Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence:
                              7004WN
                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
  3633
3618.5
3615
3600.5
3600.5
354.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B B
                                                                                                                                           Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nucleic search,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Xgapop 10.0,
Ygapop 10.0,
Fgapop 6.0,
Delop 6.0,
                                                                                                                                         Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    February 20, 2005, 21:44:36 ; Search time 4920 Seconds (without alignments) 5075.236 Million cell updates/sec
  100.0
100.0
99.6
99.5
99.1
99.1
99.1
98.1
                                                                                                                                                                                                                                                                                                                                                                                             EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-791-017A-2
3633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34239544 seqs, 19032134700 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MASTDYSTYSQAAAQQGYSA....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Copyright
                                                                                                                                                                                                                                                                  gb_est5:*
gb_est6:*
gb_gss1:*
gb_gss2:*
                                                                                                                                                                                                                                                                                            gb_est4:*
gb_est5:*
gb_est6:*
                                                                                                                                                                                                                                                                                                                                    gb_est1:*
gb_est2:*
gb_htc:*
gb_est3:*
              2157
2314
2159
2103
2070
2093
2126
2107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           using
                                                                                                                                           뮵
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Xgapext
Ygapext
Fgapext
Delext
             CR604952
CR608375
CR625247
CR619493
CR602561
CR594868
CR610888
                                                                                                                                           Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           frame_plus_p2n model
                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .GGPGKMDKGEHRQERRDRPY 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         68479088
             CR604952
CR608375
CR625247
CR619493
CR602561
CR594868
CR610888
AK019460
                                                                                                                                        Description
              full-leng
full-leng
full-leng
full-leng
full-leng
full-leng
full-leng
full-leng
full-leng
                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 1
CR604952
LOCUS
                                                                                                                                                                                                                                                                                                                       SOURCE
ORGANISM
                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                 VERSION
                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ი
                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                        JOURNAL
REMARK
                                                                                                                                                                                                                                                    TITLE
               source
```

ALIGNMENTS

4 5	44	43	42	41	40	39	38	37	36	ω 5	34	ü	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10
1568	1573	1574.5	1583	1589	1597	1599	1601	1602	1602	1604	1604.5	1607	1607	1607	1608.5	1609.5	1614	1622	1624	1624.5	1628	1628	1629	1629.5	5	1656	1663		1675.5	1874	2568	3321	3455.5	3530.5	3549
	43.3	•	٠			44.0	44.1	44.1	44.1	•		٠	44.2	٠.	44.3	44.3	44.4	44.6	. 44.7	44.7	4.	44.8	4.	٠.	ŗ	45.6	ŗ	٠	ა	51.6		Ľ	5	97.2	7.
917	971	1041	1031	1024	1013	922	1028	1087	993	1024	1024	1068	1062	1027	1787	1040	984	1021	962	1062	1079	1015	1020	1056	1058	1008	1045	1049	4729	1379	2692	2269	2236	2373	2083
5	S	თ	4	4	σı	S	4.	v	თ	ຫ	4.	տ	4	თ	ω	տ	ű	თ	տ	v	ຫ	ŋ	ഗ	v	Δ	σı	თ	υı	w	w	w	w	w	w	w
BX407419	BX407826	BX420692	BM477969	BM468711	BX367687	BX465100	BM476095	BX398765	BX462635	BQ062138	BM556024	BX382091	BM473356	BX428312	CR618632	BX399070	BX443496	BX464988	BX443095	BM909485	BX449774	BU841107	771	BQ059127	292	331	43	BX325713	æ	AK014366	390	974	0463	3475	CR608666
9	7826	N	φ	_			տ					_						œ	BX443095 BX		BX449774 B		œ			3313	9438	25713	9	366	3904	49743	4639	34755	CR608666 ft
BX407419	BX407826	BX420692	AGENCOURT	AGENCOURT	BX367687	BX465100	AGENCOURT	BX398765	BX462635	AGENCOURT	AGENCOURT	BX382091	AGENCOURT	BX428312	full-leng	BX399070	BX443496	BX464988	BX443095	AGENCOURT	BX449774	AGENCOURT	AGENCOURT	AGENCOURT	AGENCOURT	BX353313	AGENCOURT	BX325713	Homo sapi	ດ	Xenopus 1	Mus muscu	full-leng	Mus muscu	ull-leng

CUS CR604952 CR604952 FINITION full-length cDNA clone CSODIO10YII2 of Placenta Cot 25-normalized of Homo sapiens (human) CR604952 CR604952

1000

940 320

340

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                       밁
                                                                                          ક
                                                                                                                   음 중
                                                                                                                                                                             8 8 8 8 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-791-017A-2 (1-656) x CR604952
                                     261
                                                                                                                                                       221
                                                                                                                                                                                                                                                                                                                                                         461
                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                 821
                                                                       761
                                                                                                                               701
                                                                                                                                                                                        641
                                                                                                                                                                                                                  201
                                                                                                                                                                                                                                               581
                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                    521
                                                                                                                                                                                                                                                                                                                                161
                                                                                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                                                                                                   401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41
              GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                  ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                             MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                                                                                                           GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG
                                                                                                                                                                                                                                                                                                                                                                          AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                                                                                                                                                                                                                                                                                                  TATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCCAGGCTCAGACCACTGCAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                                                                                                                               ATGCAGCCAGTCACTGCACCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /mol_type="mRNA"
/db xref="taxon:9606"
/clone="CSONIO10Y112"
/tissue_type="placenta Cot 2
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.23e-212
3633.00
100.00%
100.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (1-2157)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                        rctcagcagaacacctatgggcaaccgagcagctat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-normalized"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2157
656
0
0
                880
                                            280
                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                     580
                                                                                                                                                                                                                                                                                                                                                                                                                                              140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100
                                                                       820
                                                                                                   260
                                                                                                                               760
                                                                                                                                                                                      700
                                                                                                                                                                                                                  220
                                                                                                                                                                                                                                               640
                                                                                                                                                                                                                                                                         200
                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                            520
                                                                                                                                                                                                                                                                                                                                                                                         160
                                                                                                                                                                                                                                                                                                                                                                                                                  460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  40
S
                          밁
                                               5
                                                                                   음 성 음
                                                                                                                                                             5
                                                                                                                                                                                               밁
                                                                                                                                                                                                                     중 유
                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                유 &
                                                                                                                                                                                                                                                                                                                                                                 유 성
                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                           1781
                                                                                                                                                                                                   1721
                                                                                                                                                                                                                                                          1661
                                                                                                                                                                                                                                                                                                                 1601
                                                                                                                                                                                                                                                                                                                                                                     1541
                                                                                                                                                                                                                                                                                                                                                                                                                              1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1241
                             1901
                                                                                    1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1061
                                                                                                                                                                      581
                                                                                                                                                                                                                              561
                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                            521
                                                                                                                                                                                                                                                                                                                                                                                                   501
                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     281
                                                                                                                                                                                                                                                          AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                          ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyProGlyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGlyProClyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TyrleuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
 LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656
                                                                                    ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                  GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAAGTCTCCCTTGCTCGGAAGAAGCCTCCAATGAACAGTATGCGGGGGTGGTCTGCCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCAGGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGly
                                              ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                             CGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGT
                                                                                                                                                                                                     GGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAAGAAGAGGTGGCCTCATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCGGTGGAATGGGCAGCGCTGGAGAGCGAGGTGGCCTTCAATAAGCCCTGGTGGACCCATG
```

560 1720

1660

540

1900

620

1960

1840

600

1780

580

1600

1540

500

1480

480

1420

460

1300

1240

400

420

1180

1120

360

1060

1360

41 TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr 60	Oy 1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla 20	Score: 3633.00 Matches: 656 Percent Similarity: 100.00% Conservative: 0 Best Local Similarity: 100.00% Mismatches: 0 Query Match: 100.00% Mismatches: 0 Query Match: 0 DB: 3 Gaps: 0 US-10-791-017A-2 (1-656) x CR608375 (1-2314)	9066" 97024" PORT_6"	LIST SETAING CUMA WAS PRIMED WITH A NOTL-OLIGO(QT) PRIMER: Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and ECOR V sites of the pCWVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invirrogen. FEATURES Location/Qualifiers 12314 /organism="Homo sapiens"	http://fulllength.invitrogen.com/ InvitroGen Corporation 1600 Faraday Avenue Faraday Avenue CE 2 (bases 1 to 2314) RS Genoscope. Direct Submission AL Submitted (20-UUL-2004) Genoscope - Centre National de Sequence BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.ci - Web : www.genoscope.cns.fr)	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; REPERENCE 1 (bases 1 to 2314) AUTHORS Li,W.B., Gruber,C., Jessee,J. and Polayes,D. TITLE Full-length cDNA libraries and normalization JOURNAL Upublished REMARK Contact: Feng Liang Email: fliang@lifetech.com URL:	ACCESSION CRO8375 VERSION CR608375.1 GI:50489182 KEYWORDS HTC; CNSLT_CDNA. SOURCE Homo sapiens (human) ORGANISM Homo sapiens	CDNA
5 B 5 B 5 B 5	?	5 8 8 8 8	5	B & B &	. B & B &	ор О У	& B &	p
401 TyrleuAsplyGlivinrGlyNySProcySGlyAsphalatnrvalSerTyrGluAsplro 420 401 TyrleuAsplyGlivinrGlyNySProcySGlyAsphalatnrvalSerTyrGluAsplro 420 421 TACCTGGACAAGGAAACACGAAAGCCCAAAGGCCACAGTGTCCTATGAAGACCCA 1300 421 ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu 440	AGTGCAATTTATGTACAAGGATTAAATGAACAGTGTGACTCTAGATGATCTGGCAGACTTC AGTGCAATTTATGTACAAGGATTAAATGAACAGTGTGACTCTAGATGATCTGGCAGACTTC PheLysGlnCysGlyVallysMetAsnLysArgThrGlyGlnProMetIleHisIte	AIGGLYGLYMECGLYSELALAGLYGLUALGGLYGLYFIGABILLYBFLOGLYGLYFLOMEC	GluserGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg [241 ProprogInThrolySerTyrSerGInA.aProSerGInTyrSerGInGInSerSerSer 260 [Thrse-TyrasgolnserserTyrserolnglnasmThrTyrolyGlnproserSerTyr	CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCCAGGTACCTGGGAGCTACCCC MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro	141 ABDGIYABNLYBProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrABnGln 160	101 ThrThrAlaThrValThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr 120

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 3
CR625247
LOCUS
                                                      FEATURES
                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                         JOURNAL
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                      JOURNAL
                                    Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    621
                                                                Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (B-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pcMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invityogen.
                                                                                                                                                                                                                                                                      Contact : Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
                                                                                                                                                                                                                                                                                                       Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished
                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 2159)
                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CR625247
CR625247.1 GI:50506054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CR625247 2159 bp rfull-length cDNA clone CS0DE005YF11
                                                                                                                                                                                                       Direct Submission
                                                                                                                                                                                                                                                            Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGAGGACCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGTGGTGGTCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyAspArgGlyArgGlyGlyFroGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                        (bases 1 to 2159)
                                                                                                                                                                                                                                                                                                                                                                                                                                              CNSLT CDNA.
                                    Location/Qualifiers
1. .2159
/organism="Homo sapiens"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mRNA linea
L of Placenta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
centa of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HTC
Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-JUL-2004
sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Alignment & Pred. No.:
 8
                                                           Ş
                                                                                                     밁
                                                                                                                               $
                                                                                                                                                                      밁
                                                                                                                                                                                                S
                                                                                                                                                                                                                                       뮍
                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         श्च
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-791-017A-2 (1-656) x CR625247 (1-2159)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                        646
                                                                                                                                                                                                                                                                                                           586
                                                                                                                                                                                                                                                                                                                                                                          526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scores:
   281
                                    826
                                                                    261
                                                                                                       766
                                                                                                                                     241
                                                                                                                                                                      706
                                                                                                                                                                                                       221
                                                                                                                                                                                                                                                                        201
                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                           161
                                                                                                                                                                                                                                                                                                                                                                                                                                           466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetalaSerThrAspTyrSerThrTyrSerGlnAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                           GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
   GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                           TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                        ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                        ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                                                                           ATGCAGCCAGTCACTGCACCTCCATCCTACCCTACCAGCTATTCCTCTACACAGCCG
                                                                                                                                                                                                                                                                                                                              MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                                                                                                                                               ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                           GATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCCTGCTTATCCAGCCTATGGGCAGCAGCCAGCCACCTGCACCTACAAGACCGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrThrAlaThrValThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                        GGACAGCAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTAC
                                                                                                                                                                                                                                        ACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTAT
                                                                                                                                                                                                                                                                                                                                                                            CCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTGCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /db_xref="taxon:9606"
/clone="CSODE005YF11"
/tissue_type="Placenta"
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9.5e-212
3618.50
99.85%
99.85%
99.60%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2159
655
0
0
1
```

140

405 120 345 100

285 80 225 6 165 40 105 20

200

585 180 525 160 465

300 885 280 825 260 765 240 705 220 645 밁 S 밁 **원** 유 S 밁 ঠ 문 Ś 밁 S 5

밁

5 밁 δ 문

밁

```
946 GGCAGGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGA
                                                                                                                                                                                                                                                      ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                       GlyAspArgGlyArgGlyGlyFroGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACTGGCAGTGTCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LysValSerLeuAlaArgLysLysBroProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProThrAlaLygAlaAlaValGluTrpPheAspGlyLygAspPheGlnGlySerLygLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
LysMetAspLysGlyGluH1sArgGlnGluArgArgAspArgProTyr 656
                                                                                     ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                   GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                            CGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGT
                                                                                                                                                                                                                                                                                                                AACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                        AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProProPheProProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGACCCCGGGGTTCCCGAGGGAACCCCCTCTGGAGGAGGAAACGTCCAGCACCGAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGTGAGGGCAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCACTGCCAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGGAGCAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TACCTGGACAAGGAAACAGGAAAGCCCAAAGGCGATGCCACAGTGTCCTATGAAGACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGCGGTGGAATGGGC---GCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1842
                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                             1782
                                                                                                                                                                                                                                                                                                                                                                                               1722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1005
                                                                1962
                                                                                                      640
                                                                                                                                               1902
                                                                                                                                                                                     620
                                                                                                                                                                                                                                                                                                                                                    580
                                                                                                                                                                                                                                                                                                                                                                                                                                     560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 4
CR619493
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
á
                                        밁
                                                                             Ş
                                                                                                                          뭉
                                                                                                                                                          á
                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-791-017A-2 (1-656) x CR619493 (1-2103)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1963 AAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC 2010
                                          241
                                                                                                                          181
                                                                                                                                                                                                         121
                                                                                 85
                                                                                                                                                                65
                                                                                                                                                                                                                                               45
                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                25 ProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSerTyrGlyThrTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission

Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage :

BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr

Heb : www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2103 bp mRNA linear full-length cDNA clone CS0DI076Y021 of Placenta Cot Homo sapiens (human).
                                                                                                                                                                                                                                                                                                                                                                         1 GATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAG
                                                                                                                                                                                                                                                                                                                                                                                               5 AspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAlaTyrThrAlaGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Verte Mammalia; Butheria; Primates; Catarrhini; Hon 1 (bases 1 to 2103)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CR619493.1 GI:50500300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CR619493
                                                                                                                                                                                                                              GlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThrTyrGlyGlnThr
  ValThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThrGlnProAlaTyr
                                                                    AlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThrThrThrAlaThr 104
                                                                                                                                                          AlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrProThrAlaProGln
                                                                                                                                                                                                                                                                                      CCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTAT
                                          GCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (bases 1 to 2103)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CNSLT CDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone="CS0DI076YO21"
/tissue_type="Placenta Cot 25-normalized"
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.51e-211
3615.00
100.00%
100.00%
99.50%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .2103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2103
652
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HTC 21-JUL-2004
25-normalized
                                          300
                                                                                                                          240
                                                                                                                                                                84
                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                 64
                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                 44
                                                                                                                                                                                                                                                                                                                                                                         60
```

Ş 밁 ð 밁

441

1303

1363

1483

481

1423

461

밁 श् 문 ð 밁 ঠ 밁 ð 문 S

1183

381

1123

1063

1006 341

321

988

301

S

401

1243

421

S 밁 ð 밁 S 밁 र् 밁 ð 밁 ঠ 밁

561

1663

541

1603

521

1543

1723

δ

맑

641

ક 밁 δ 밁

601

뭐

```
1201
                                                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                                                                                    1021
                  465
                                                                                                                                                                                                                                                                                         365
                                                                                                                                                                                                                                                                                                                                            345
                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                                 325
                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                     305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
GlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyProGlyGlyProMet
                                                           AlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProProArgGluGlyArg
                                                                                                              AlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeuLysValSerLeu
                                                                                                                                                                    GluThrGlyLy8ProLy8GlyAspAlaThrValSerTyrGluAspProProThrAlaLy8
                                                                                                                                                                                                                           GlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIleTyrLeuAspLys
                                                                                                                                                                                                                                                               GTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTGGCAGACTTCTTTAAGCAGTGT
                                                                                                                                                                                                                                                                              ValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhePheLysGlnCys
                                                                                                                                                                                                                                                                                                                                          AspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsnSerAlaIleTyr
                                                                                                                                                                                                                                                                                                                                                                                        GlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMetAspGluGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGlyArgGlyGlyMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArgGlyArgGlyArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SerSerPheArgGlnAspH1sProSerSerMetGlyValTyrGlyGlnGluSerGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSerTyrGlyGlnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyrProProGlnThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyrGlyGlnGlnSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnProThrSerTyrAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrProMetGlnProVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGlnProSerLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAGCCTATGGGCAGCAGCCAGCAGCCACCTACAAGACCGCAGGATGGAAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGlnAspGlyAsnLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACCTCAGCCTGCTTAT
                                                                                                                                                    GGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATGATCCACATCTACCTGGACAAG
                                                                                                                                                                                                                                                                                                                    GATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGACTCTGACAACAGTGCAATTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                             GGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGACGCCGGTGGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCGAGCAGCTATGGACAGCAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGGAGCTACCCCATGCAGCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTTCCGGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1140
                                                                                                                                                                                                                                                                                                                    1080
                                                                                                                                                                                                                                                                                                                                                                         1020
                                                                     464
                                                                                                1320
                                                                                                                         444
                                                                                                                                                    1260
                                                                                                                                                                                                            1200
                                                                                                                                                                                                                                    404
                                                                                                                                                                                                                                                                                         384
                                                                                                                                                                                                                                                                                                                                            364
                                                                                                                                                                                                                                                                                                                                                                                                                                                       324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 144
                 484
                                           1380
                                                                                                                                                                               424
                                                                                                                                                                                                                                                                                                                                                                                                  344
                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 5
CR602561
LOCUS
                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                            SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         용
                                                       FEATURES
                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                 TITLE
JOURNAL
                                                                                                                                                                                                                                                  REMARK
                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           505
```

음 성 음 성 음

음 성 음 성 음

S

Ś

음 성 음

문

5

5 8 5

밁

8 8 8 8 8 8 8 8 8 8 8

```
1381 GGCATGCCACCACCCCTCCGTGGAGGTCCAGGAGGCCCAGGAGGTCCTGGGGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CR602561
full-length cDNA clone CS
of Homo sapiens (human).
CR602561
CR602561.1 GI:50483368
HTC; CNSLT_cDNA.
Homo sapiens (human)
                                                                                                                   Direct Submission

Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage:

BE 191 91006 EVRY cedex - FRANCE (E-mail: seqref@genoscope.cns.fr

BE 191 91006 EVRY cedex - FRANCE (E-mail: seqref@genoscope.cns.fr

- Web: www.genoscope.cns.fr)

let strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Verte
Mammalia; Eutheria; Primates; Catarrhini; Hon
1 (bases 1 to 2070)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished
Contact : Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InVitroGen Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                          Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGlyLysMetAspLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArgGlyGlyArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAspArgGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AlaProLygProGluGlyPheLeuProProProPheProProProGlyGlyAspArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCCGAGGGAACCCCTCTGGAGGAAGGAAACGTCCAGCAGCCGAGCTGGAAGTGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGlyAspTrpGlnCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGTCGCATGGGAGGCCGTGGAGGAGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArgGlyProArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTGATGGAACAGATGGGAAGAAGAAGAGGAGGACGTGGAAGACCTGGAAAAATGGATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGGCCCCCCTGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGlyProProGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProAsnProGlyCy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGCCTCATGGATCGTGGTGGTCCC
                                                                                                                                                                                                                                                                                                                                                                                                              (bases 1 to 2070)
                                                                               1. .2070
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /BGlyAsnGlnAsnPheAlaTrpArgThrGluCysAsnGlnCysLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CSODIO68YN23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Placenta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
centa Cot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HTC 21-JUL-2004
25-normalized
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1560
```

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                     중 유
                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                        ð B
                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                             중 음
                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                     ક
                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                     뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-791-017A-2 (1-656) x CR602561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Хо
:
           285
                                                            721
                                                                                                661
                                                                                                                                  601
                                                                                                                                                                                                        481
                                                                                                                                                                                                                        165
                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                          145
                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                              105
                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                 85
                                                                                                                                                                                                                                                                                                                                                                                                   83
                                                                                                                                                                                                                                                                                                                                                                                                                                      $
                                                                                                                                                                                                                                                                                                                                                                                                                                                        13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          v
                                                                                                                                GlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyrGlyGlnGlnSer
                                                                                                                                                                   PheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArgGlyArgGlyArg
                           GGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAG
                                                                     GlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSerTyrGlyGlnGln
                                                                                              SerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyrProProGlnThr
                                                                                                                                                                                                     TyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrProMetGlnProVal
                                                                                                                                                                                                                                         CCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGA
                                                                                                                                                                                                                                                    ProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGlnProSerLeuGly
                                                                                                                                                                                                                                                                          ProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGlnAspGlyAsnLys
                                                                                                                                                                                                                                                                                                                     ValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThrGlnProAlaTyr
                                                                                                                                                                                                                                                                                                                                                         AlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThrThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                   GCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCAACTGCCCCCCAG
                                                                                                                                                                                                                                                                                                                                                                                           AlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrProThrAlaProGln
                                                                                                                                                                                                                                                                                                                                                                                                                    CCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGCTATGGAACCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSerTyrGlyThrTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone="CSODIO68YN23"
/tissue_type="Placenta
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.15e-210
3600.50
99.85%
99.85%
99.11%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (1-2070)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   to
Cot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-normalized"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2070
651
0
1
                                                                              264
                                                                                                                                 660
                                                                                                                                                                     600
                                                                                                                                                                                                      540
                                                                                                                                                                                                                        184
                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                          164
                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                              124
                                                                                                                                                                                                                                                                                                                                                                 104
                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       44
                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                   84
                                                                                                                                                                                                                                                                                                                                                                                                                                      64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
            S
 밁
                                  음 성
                                                               よ
                                                                                 S
                                                                                                      밁
                                                                                                                   S
                                                                                                                                      밁
                                                                                                                                                       δ
                                                                                                                                                                            밁
                                                                                                                                                                                      ঠ
                                                                                                                                                                                                             밁
                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                               중 유
                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                            음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                          유성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5 B
1918
                                   1858
                                                                                                       1738
                                                                                                                                         1678
                                                                                                                                                                            1618
                                                                                                                                                                                                                                                  1498
                                                                                                                                                                                                                                                                                                                      1378
                                                                     1798
                                                                                                                                                                                                               1558
                                                                                                                                                                                                                                                                                   1438
                                                                                                                                                                                                                                                                                                                                                        1318
                                                                                                                                                                                                                                                                                                                                                                                                                              1198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1078
                                                                                                                                                                                                                                                                                                                                                                                          1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1018
                                                                                       605
                                                                                                                                                                                              545
                                                                                                                                                                                                                                                                                                                                                                         445
                                                                                                                                                                                                                                                                                                                                                                                                                                              405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
          GlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                         ArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAspArgGlyGlyPro
                                                                                                                                                                            ProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCysAsnGlnCysLys
                                                                                                                                                                                                                                                 SerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGlyAspTrpGlnCys 524
                                                                                                                                                                                                                                                                                                                                                        AlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProProArgGluGlyArg
                                                                                                                                                                                                                                                                                                                                                                                         GluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspProProThrAlaLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIleTyrLeuAspLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhePheLysGlnCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsnSerAlaIleTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMetAspGluGlyPro
                                             LeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGlyLysMetAspLys
                                                                               MetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGlyProProGlyPro
                                                                                                                GlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArgGlyGlyArgGly
                                                                                                                                                                                                                                                                                            GlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArgGlyProArgGly
                                                                                                                                                                                                                                                                                                                              GlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGlyArgGlyGlyMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTTTCCGGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGA
                                                                     ATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGGCCCCCTGGACCT
                                                                                                        GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGAGAGAGGTGGCTTCCGTGGTGGCCGGGGC
                                                                                                                                                                                                                                                                                    GGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGT
                                                                                                                                                                                                                                                                                                                      GGCATGCCACCACTCCGTGGAGGTCCAGGAGGCCCCAGGAGGTCCTGGGGGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGACGCGGTGGAATG
                                                                                                                                                                                                                                                                                                                                                                         464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 404
                                    1917
                                                                                                        1797
                                                                                                                                                            584
                                                                                                                                                                                                                                                                                   1497
                                                                                                                                                                                                                                                                                                                      1437
                                                                      1857
                                                                                                                         604
                                                                                                                                          1737
                                                                                                                                                                            1677
                                                                                                                                                                                              564
                                                                                                                                                                                                               1617
                                                                                                                                                                                                                                                  1557
                                                                                                                                                                                                                                                                                                      504
                                                                                                                                                                                                                                                                                                                                        484
                                                                                                                                                                                                                                                                                                                                                         1377
                                                                                                                                                                                                                                                                                                                                                                                          1317
                                                                                                                                                                                                                                                                                                                                                                                                            444
                                                                                                                                                                                                                                                                                                                                                                                                                              1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
```

9 9 1 1 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Q B Q	Best Local Query Match DB: US-10-791-0 Qy	Alignment S Pred. No.: Score: Percent Sim		COMMENT FEATURES FOURCE	REFERENCE AUTHORS TITLE JOURNAL	REFERENCE AUTHORS TITLE JOURNAL REMARK	ACCESSION VERSION KEYWORDS SOURCE ORGANISM	RESULT 6 CR594868 LOCUS DEFINITION
121 GGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCCAACTGAACCTATGGCAGACCCAAGCCCACTGAGGCAGACCC 65 AlaTyrAlaThrSerTyrGlyGlnProProThrAGlyYrThrThrProThrAlaProGln 84	1 SATTACAGTACTATAGCCAAGCTGCAGCGCAGCAGGGCTACACTGCTTACACCGCCCAG 60 25 ProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSerTyrGlyThrTyr 44	Local Similarity: 99.85* Mismatches: 0 y Match: 99.11* Indels: 1 Gaps: 1 0-791-017A-2 (1-656) x CR594868 (1-2093) 5 AspTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAlaTyrThrAlaGln 24	Scores: 1.16e-210 Length: 2093 milarity: 99.85% Conservative: 0	/organism='Homo Bapiens" /mol_type="mRNA" /db_xref="taxon:9606" /clone="CSODI064YE15" /tissue type="placenta Cot 25-normalized" /plasmid="pcMVSPORT 6"	end enriched, double-strand cDNA into the Not I and Ecor V sites was normalized. Library was cons division of Invitrogen. Location/Qualifiers 1.203	2 (bases 1 to 2093) Genoscope. Direct Submission Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)	I (DASES 1 TO 2093) Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished Contact: Feng Liang Email: fliang@lifetech.com URL: http://fulllength.invitrogen.com/ InVitroGen Corporation 1600 Faraday Avenue	CR594868 CR594868.1 GI:50475675 HTC; CNSLT cDNA. Homo sapiens (human) Homo sapiens (chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.	CR594868 2093 bp mRNA linear HTC 21-JUL-2004 full-length cDNA clone CSODI064YE15 of Placenta Cot 25-normalized of Homo mapienm (human).
B & B & B & B	5 5 5 5	3	Db Qy	& B &	8 8 8 8	р О У В	Q D Q	5 & & &	о О О
78 65 78		45 AspleuAspleuGlyProProValAspProAspGluAspSerAspAsnSerAlaIleTyr	901 GGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGA	285 PheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArgGlyArgGlyArg 304	245 GIYSETTYZSERGINALAPZOSERGINTYZSERGINGINSEZSERTYZGIYGINGIN 264 246 GIYSETTYZSERGINALAPZOSERGINTYZSERGINGINSEZSERTYZGIYGINGIN 264 247 GIYSETTYZSERGINALAPZOSERGINGINSEZSERTYZGIYGIHI	601 CAGAGCAGTTACTCTCAGCAGAÁCACCTATGGGCAÁCCGAGCAGCTATGGACAGCAGCAGAGT 660 225 SerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProThrSerTyrProProGlnThr 244	185 ThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnProThrSerTyrAsp 204	145 ProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGlnProSerLeuGly 164	301 GTCACCACCACCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTAT 3 125 ProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGlnAspGlyAsnLys 1

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                    KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 7
CR610888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                 FEATURES
                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                          JOURNAL
REMARK
                                                                                                                                                                                                              JOURNAL
                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1918 GGCGAGCACCGTCAGGAGCGCGAGAGATCGGCCCTAC 1953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            585
                                                                                                     Direct Submission

Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage :

BP 191 91006 EVRY cedex - FRANCE (B-mail : seqref@genoscope.cns.fr

Web : www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a
                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutherla; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 2126)

Li,W.B., Gruber, C., Jessee, J. and Polayes, D.

Full-length cDNA libraries and normalization
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                  CR610888.1 GI:50491695
HTC; CNSLT_cDNA.
Homo sapiens (human)
                                                                                                                                                                                                                                          Genoscope.
                                                                                                                                                                                                                                                                                       Contact : Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
                                                                                                                                                                                                                                                                          Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   full-length cDNA clone
                                                                                                division
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGATGGAACAGATGGGAGGAAGAAGAGGGAGGACGTGGAAAAATGGATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGlyLysMetAspLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGlyProFroGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArgGlyGlyArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAspArgGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AlaProLysProGluGlyPheLeuProProProPheProProProGlyGlyAspArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGAACAGAGTGCAACCAGTGTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCysAsnGlnCysLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCCGAGGGAACCCCTCTGGAGGAGGAGGAACGTCCAGCACCGAGCTGGAGACTGGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGlyAspTrpGlnCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGTCGCATGGGAGGCCGTGGAGGAGAGATAGAGGAGGAGGCTTCCCTCCAAGAGGACCCCGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArgGlyProArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGTGGCTTCCGTGGTGGCCGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCGCCCCCGGGTGGTGATCGTGGC
                                                                                                                                                                                                                                                        (bases 1 to 2126)
                                                                          of Invitrogen.
Location/Qualifiers
 /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODF037YIO7"
                                                                1. .2126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2126 bp n
CS0DF037YI07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA linear HTC 21-JUL-2004
7 of Fetal brain of Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 656
                                                                                                                                           Five prime and cloned
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                504
 밁
                          S
                                                               밁
                                                                                        S
                                                                                                                         밁
                                                                                                                                                       Ś
                                                                                                                                                                                          문
                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-791-017A-2 (1-656) x CR610888 (1-2126)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    No:
841
                                                                                                                            ,721
                               285
                                                                                              265
                                                                                                                                                            245
                                                                                                                                                                                            661
                                                                                                                                                                                                                          225
                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                       205
                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                   185
                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                   165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                105 ValThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThrGlnProAlaTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25 ProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSerTyrGlyThrTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 GATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCTTACACCGCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ហ
                                                                                                                                               GlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSerTyrGlyGlnGln
                                                                                                                                                                                                                                                        PheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArgGlyArgGlyArg
                                                                                 SerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGlnGluSerGlyGly
                                                                                                                            GGATCCTACAGCCAAGCTCCAAGTCAATATAGCCAACAGAGCAGCAGCTACGGGCAGCAG
                                                                                                                                                                                                              SerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyrProProGlnThr
                                                                                                                                                                                                                                                                                                                                        ThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnProThrSerTyrAsp
                                                                                                                                                                                                                                                                                                                                                                                                     TyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrProMetGlnProVal 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGlnProSerLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGlnAspGlyAsnLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCACCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACTCAGCCTGCTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACCACCACTGCTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThrThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGACAGCCCACTGATGTCAGCTATACCCCAGGCTCAGACCACTGCAACCTATGGGCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThrTyrGlyGlnThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AspTyrSerThrTyrSerGlnAlaAlaGlnGlnGlyTyrSerAlaTyrThrAlaGln
                                                                                                                                                                                            AGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCCACTAGTTACCCCACCCCAAACT
                                                                                                                                                                                                                                                                                                                       ACTGCACCTCCATCCTACCCTCCTACCAGCTATTCCTCTACACAGCCGACTAGTTATGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAGCCCAGCCTAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAGCCTATGGGCAGCCAGCAGCCACCTGCACCTACAAGACCGCAGGATGGAAACAAG
   TTTTCCGGACCAGGAGAACCGGAGCATGAGTGGCCCTGATAACCGGGGCAGGGGAAGA
                                                               AGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAGGAGTCTGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /tissue_type="Fetal brain"
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.18e-210
3600.50
99.85%
99.85%
99.11%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2126
651
0
1
```

300

104 240 84 180 64 120 44 60

480 164 420 144 360 124

밁

8 8 8 8 8 8 8 8 8 8 8

밁

음 성

음 성

밁 S 밁 5 뮍 ঠ 밁 ş 밁 ঠ 문 S 밁 S 밁 ફ

```
JOURNAL
MEDLINE
PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 8
AK019460
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                 TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                     Group Phase I & II Team.

Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs

L Nature 420, 563-573 (2002)

B 6 (bases 1 to 2107)

Alzawa, K., Akahira, S., Akimura, T., Arai, A., Aono, H., Sadachi, J., Aizawa, K., Akahira, A., Hayatsu, N., Hiramoto, K., Furuno, M., Hanagaki, T., Hara, A., Hayatsu, N., Hiramoto, K., Furuno, M., Hanagaki, T., Karai, J., Kojima, Y., Konno, H., Kouda, M., Kasukawa, T., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C., Saito, H., Saito, R., Sakai, C., Sakai, K., Sano, H., Sasaki, D., Shibata, K., Shibata, Y., Shinagawa, A., Shiraki, T., Sogabe, Y., Suzuki, H., Tagami, M., Tagawa, A., Takahashi, F., Tanaka, T., Tejima, Y., Toya, T., Yamamura, T., Yasunishi, A., Yoshida, K., Direct Submission

Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FANTOM Consortium.

Functional annotation of a full-length mouse Nature 409, 685-690 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishi, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y., RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
RIKEN Yokohama Institute, 1-7-22 Suehiro-cho, Tsurumi-ku, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
                                                                                               Submitted (18-AUG-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muzamatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
99279253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AKO19460 2107 bp mRNA linear HTC 03-APR-2004 Mus musculus 18 days pregnant adult female placenta and extra embryonic tissue cDNA, RIKEN full-length enriched library, clone:3830417B11 product:Ewing sarcoma homolog, full insert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genome Res.
20530913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HTC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The FANTOM Consortium and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11042159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20499374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AK019460.1 GI:12859676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11076861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .0349636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIKEN Genome Exploration Research Group Phase II Team and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAP trapper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIKEN Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Exploration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           functional annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 collection
```

```
Query
DB:
                                                                                                                                                              밁
                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
Query Match:
                                                  ð
                                                                                                문
                                                                                                                          ঠ
                                                                                                                                                                                                                                                    US-10-791-017A-2 (1-656) x AK019460 (1-2107)
                                                                                                                                                                                                                                                                                                                                                                                                             Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bource
                                                                                                                                                                                                                                                                                                                                                                                         Хо
::
                      137
                                                          4
                                                                                                                                                                          17
                                                                                                  77
                                                                                                                                    21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues. First strand cDNA was primed with a primer [5, GARAGARAGARCCHARAGCTCTTTTTTTTTTTTTTVN 3,], CDNA was prepared by using trehalose thermo-activated reverse transcriptase and subsequently enriched for full-length by cap-trapper, CDNA went through one round of normalization to Rot = 10.0 and subtraction to Rot = 50.0. Second strand cDNA was prepared with the primer adapter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   details.
cDNA library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Please visit our web site (http://genome.gsc.riken.jp/) for further
                    TATEGAACCTATEGACAGCCTACTGATGTCAGCTATACTCAGGCTCAGACCACTGCCACC
                                          TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                      TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                                          ATGGCGTCCACGGATTACAGTACCTATAGTCAAGCTGCAGCCCAGCAGGGCTACAGTGCT
                                                                                                                                                                                                    MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /codon start=1
/protein_id="BAB31732.1"
/protein_id="BAB31732.1"
/db_xref="Gi:1289677"
/db_xref="Gi:1289677"
/db_xref="Gi:1289677"
/translation="MASTDYSTYSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY
/translation="MASTDYSTYSQQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTY
/translation="MASTDYSTYSQQAAAQQGYSAYTAQPTQGYQGYGTGYNGTGYNQ
/translation="MASTDYSTYSQQPTATAPTRPQDGNKPABTSQPQSTGGYNQ
GPTDYSTYQACSYAYTYGQQDGYTATAPTRPQDGNKPASTSQPQSTGGYNQ
PSLGYGQSYGQQSSYGQQPTSYEPQTGSYSQABSQYSQQSSSYGQQSSFRQDHPSSNG
PSLGYGQSSYGQQSYGQAPTSYEPQTGSYSQABSQYSQSSSYGQQSSFRQDHPSSNG
YYGQESGGFSGPENSLSGPDNRGRGRGFDRGRGGRGGRGGGGGGGGGGNKRGT
GYGQSSYGQQSSYGQAPTSYEPQTGSYSQABSQYSQASSYCQCSYKANKRT
GGPMDEGPLDLGLFIDDEDSDNSAITVQGLANNVTLDDLADFRYQCGVKANKRT
GQPM1HIYLDKETGKPKGDATVSYEDPPTAKAAVEMPGSCDFQGSKLKYSLARKKEPM
NSMRGGMPPREGRGMPPPLRGGPGGFGGGGFGGGRGDRGGFGGFRGGBPGGP
SGGGNVGHRAGDWQCDNFGCGNQNFAMRTECNQCKAFKEBGFLFPPFFFPFGDBRGGG
FGGMAGRGGLMDRGGPGGGFGGGRFGGGRGDRGGFGGGRGGPGGPPGPL
FGGMAGGRGGLMDRGGPGGGMFRGGRGGRGGRGGRGGFGGGGRRGGFGGFFGGFPGFP
FGGMAGGRGGLMDRGGPGGGMFRGGRGGRGGRGGRGGFGGGRRGGFGGFFGGFPGFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /tissue_type="placenta and extra embryonic tissue"
/clone_Tlb="RIKEN full-length enriched mouse cDNA library"
/dev_stage="18 days pregnant adult"
17. ..1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="unnamed protein product; Ewing sarcoma homolog
(MGD|MGI:99960, GB|NM_007968, evidence: BLASTN, 99%,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /db_xref="FANTOM_DB:3830417B11"
/db_xref="taxon:I0090"
/clone="3830417B11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sex="female"
                                                                                                                                                                                                                                                                                                           1.89e-208
3564.50
99.09%
97.71%
98.11%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               _type="mRNA"
                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                         Gaps:
                                                                                                                                                                                                                                                                                         2107
641
9
5
1
                      196
                                                          60
                                                                                                                                    40
                                                                                                136
                                                                                                                                                                          76
S
                                      밁
                                                                    ð
                                                                                                                밁
                                                                                                                                            ঠ
                                                                                                                                                                                          밁
                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                     맑
                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                  1154
                                                                                                                                                                                            1094
                                                                                                                                                                                                                                                                     1034
                                        1214
                                                                                                                                                    381
                                                                            401
                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                           341
                                                                                                                                                                                                                                                                                                                                                 977
                                                                                                                                                                                                                                                                                                                                                                                     321
                                                                                                                                                                                                                                                                                                                                                                                                                           917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            317
  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr 100
                                                                                                                                      PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIle
                                                                                                                                                                                                                SerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
                                                                                                                                                                                                                                                                                           AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
                                                                                                                                                                                                                                                                                                                                                                     ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGTCTGGAGGATTTTCCGGACCAGGAGAGAACCGGAGCTTGAGTGGCCCTGATAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTGCCCCGCAGGCGTACAGCCAGCCTGTGCAGGGATATGGCACTTGGGACTTATGACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACGGGCAGACTGCATATGCAACTTCTTACGGACAGCCTCCCACTGGTTATAGCACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu 440
                                                            TyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPro
                                                                                                                  TTTAAGCAGTGTGGGGGTTGTCAAGATGAACAAGAGAACTGGACAACCCATGATCCATATC
                                                                                                                                                                                                                                                                       GATGAAGGACCAGATCTTGATCTAGGCCTTCCTATAGATCCCGATGAAGACTCTGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                             GGCAGGGGAAGAGGGGATTTGATCGTGGAGGCATGAGCAGAGGTGGGCGGGGAGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCCCTCAGACTGGATCCTACAGCCAGGCTCCAAGTCAATATAGCCAACAGAGCAGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCAGCCTAGGATATGGACAGAGTAACTACAGCTATCCCCAGGTACCTGGGAGCTACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATGGTAACAAGCCTGCTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTATAACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGCCTGCCTACCCCACCTATGGCCAGCCAGCCAACAGCCACCGCACCTACCAGACCACAG
                                      TACCTGGATAAGGAGACAGGAAAGCCTAAAGGGGACGCCACAGTGTCCTATGAAGATCCA 1273
                                                                                                                                                                                                                                                                                                                                                   CGCGGTGGACTGGGC---GCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTAGTTACGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAGCCGAGCAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGCAGCCAGTCACCGCACCTCCATCTTATCCTCCTACCAGCTACTCCTCTTCACAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCACTGCTACAGTCACCACAACGCAGGCCTCTTACGCAGCTCAGACTGCATATGGCACC
                                                                                                                                                                                              TTTATGTGCAAGGATTAAATGACAATGTGACTCTGGATGATCTGGCAGACTTC
                                                                                                                  1213
                                                                                                                                                                                            1153
                                                                                                                                                                                                                                                                       1093
                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                   1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      140
                                                                            420
                                                                                                                                                        400
                                                                                                                                                                                                                                  380
                                                                                                                                                                                                                                                                                                                                                                                                                             976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   256
```

```
REFERENCE
AUTHORS
TITLE
JOURNAL
REMARK
                                                                                                                                                                                              KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                 RESULT 9
CR593724
LOCUS
                                                                                                                                                                                                                                  ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
  COMMENT
                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                        REFERENCE
                                                                                                                                                                                                                                                                    DEFINITION
                                     AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                              1874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1274
                                                                                                                                                                                                                                                                                                                                                                                                                              1814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          441
                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 2073)

Li,W.B., Gruber,C., Jessee,J. and Polayes,D.

Full-length cDNA libraries and normalization

Unpublished
 18t
            Direct Submission
Submitted (20-4) Genoscope - Centre National de Sequencage :
BP 191 9106 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
Web : www.genoscope.cns.fr)
                                                            Genoscope.
                                                                     Faraday Avenue
2 (bases 1 to 2073)
                                                                                              Contact : Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
                                                                                                                                                                                              Homo sapiens (human)
                                                                                                                                                                                                                    CR593724.1 GI:50474531
HTC; CNSLT_CDNA.
                                                                                                                                                                                                                                           CR593724 2073 bp n full-length cDNA clone CSODI011YO05 of Homo sapiens (human) . CR593724
                                                                                                                                                                                                                                                                                                                                             LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656
                                                                                                                                                                                                                                                                                                                                                                                            ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGACAGAGGGGGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGAGGGCAGGGGATGCCACCACCACTTCGTGGAGGTCCTGGTGGCCCAGGAGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAGTGTCTCTTGCCCGAAAGAAGCCTCCAATGAACAGCATGCGGGGAGGCATGCCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTCCTGGACCTTTAATGGAACAGATGGGAGGAAGAAGAAGAGGCGGACGTGGAGGACCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                            GGTGGCCGTGGAATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGTCCTGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGTGGTGGTCCTGGAGGAATGTTCAGAGGTGGCAGAGGTGGAGACAGAGGAGGCTTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTGATCGTGGACGAGGTGGCCCTGGTGGCATGCGAGGAGGAAGAGGACGACTCATGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACTGGCAGTGTCCCAATCCGGGCTGTGGAAACCAGAACTTCGCTTGGAGAACAGAATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGCCCCGAGGCTCCAGAGGAAACCCCTCTGGAGGAGGAAATGTCCAGCAGCCGAGCTGGA
 strand cDNA was primed with a NotI-oligo(dT) primer.
                                                                                                                                                                                                                                                                   mRNA linea
of Placenta
                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                     င္ပ
                                                                                                                                                                                                                                                                                                                               1981
                                                                                                                                                                                                                                                                    HTC 21-JUL-2004
25-normalized
  Five
 prime
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1393
                                                                                                                                                                                                                                                                                                                                                                              1933
                                                                                                                                                                                                                                                                                                                                                                                                    640
                                                                                                                                                                                                                                                                                                                                                                                                                            1873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1333
                                                                                                                                                                                                                                                                                                                                                                                                                                                    620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             500
S
                       밁
                                            Ś
                                                                       밁
                                                                                             δ
                                                                                                                      밁
                                                                                                                                       Ş
                                                                                                                                                                    片
                                                                                                                                                                                         5
                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                   닭
                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                              198
                                                                                                                                                                                              178
                                                                                                                                                                                                                     423
                                                                                                                                                                                                                                                                   363
                                                                                                                                                                                                                                                                                                                   303
 258
                         663
                                               238
                                                                        603
                                                                                              218
                                                                                                                      543
                                                                                                                                                                      483
                                                                                                                                                                                                                                           158
                                                                                                                                                                                                                                                                                                                                         118
                                                                                                                                                                                                                                                                                                                                                                 243
                                                                                                                                                                                                                                                                                           138
                                                                                                                                                                                                                                                                                                                                                                                                                 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                              123
                                                                                                                                                                                                                                                                                                                                                                                       98
                                                                                                                                                                                                                                                                                                                                                                                                                                        78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18
SerSerSerTyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyVal
```

```
Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-791-017A-2 (1-656) x CR593724 (1-2073)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          58 ThrAlaThrTyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      38 GlnGlnSerTyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 TACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
                                                                                                                SerSerTyrGlyGlnGlnSerSerTyrGlyGlnSerSerTyrGlyGlnGlnProPro
                                                                                                                                                                                                         ThrGlnProThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnPro
                                                                                                                                                                                                                                                                                                SerTyrProMetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSer
                                                                                                                                                                                                                                                                                                                                                               TACAACCAGCCCAGCCTAGGATATGGACAGAGTAACTACAGTTATCCCCAGGTACCTGGG
                                                                                                                                                                                                                                                                                                                                                                                         TyrAsnGlnProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGACCGCAGGATGGAAACAAGCCCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ArgProGlnAspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TyrGlyThrGlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThr 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TATGATACCACCACTGCTACAGTCACCACCACCAGGCCTCCTATGCAGCTCAGTCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TyrAspThrThrAlaThrValThrThrGlnAlaSerTyrAlaAlaGlnSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ThrThrProThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAACAAAGCTATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TyrSerAlaTyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGly
                                       ThrSerTyrProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGln
                                                                                                                                                                               ACACAGCCGACTAGTTATGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTAT
                                                                                                                                                                                                                                                                      AGCTACCCCATGCAGCCAGTCACTGCACCTCCATCCTACCCTCCTACCAGCTATTCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/mol_type="mRNA"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clome="GSDI011Y005"
/clome="gSDI011Y005"
/tissue_type="placenta Cot 25-normalized"
/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.65e-207
3549.00
100.00%
100.00%
97.69%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2073
639
0
0
                                                                                                                                                                                                                                                                                                                                                                                                       177
722
                                            257
                                                                                         662
                                                                                                                                237
                                                                                                                                                                               602
                                                                                                                                                                                                                         217
                                                                                                                                                                                                                                                                      542
                                                                                                                                                                                                                                                                                                                   197
                                                                                                                                                                                                                                                                                                                                                               482
                                                                                                                                                                                                                                                                                                                                                                                                                                                   422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62
```

```
1443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1143
                                                                                                     1683
                                                                                                                                                               1623
                                                                                                                                                                                                                      1563
                                                                                                                                                                                                                                                                                1503
                                                                                                                                                                                                                                                                                                                                                                                                1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                398
                                                                                                                                 578
                                                                                                                                                                                                                                                 538
                                                                                                                                                                                                                                                                                                           518
                                                                                                                                                                                                                                                                                                                                                                   498
                                                                                                                                                                                                                                                                                                                                                                                                                             478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       418
                618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TyrGlyGlnGluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GluAspProProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGly
ProGlyGlyProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGly
                                                            GlyPheArgGlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyGly
                                                                                                                        LeuMetAspArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGly
                                                                                                                                                                                ProProGlyGlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGly
                                                                                                                                                                                                                       ACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCCGCCACCCTTTCCG
                                                                                                                                                                                                                                       ThrGluCysAsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPhePro
                                                                                                                                                                                                                                                                                                ArgAlaGlyAspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArg
                                                                                                                                                                                                                                                                                                                                      CCTCCAAGAGGACCCCGGGGTTCCCGAGGGAACCCCTCTGGAGGAGGAAACGTCCAGCAC
                                                                                                                                                                                                                                                                                                                                                         ProProArgGlyProArgGlySerArgGlyAsnProSerGlyGlyAsnValGlnHis
                                                                                                                                                                                                                                                                                                                                                                                                GGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                          GlyGlyProGlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuProProArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SerLysLeuLysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCCACATCTACCTGGACAAGGAAACAGGAAAGCCCAAAAGGCGATGCCAAGTGTCCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IleHisIleTyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCAGACTTCTTTAAGCAGTGTGGGGTTGTTAAGATGAACAAGAGAACTGGGCAACCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AlaAspPhePheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTGACAACAGTGCAATTTATGTACAAGGATTAAATGACAGTGTGACTCTAGATGATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SeråspåsnSerålaIleTyrValGlnGlyLeuåsnåspSerValThrLeuåspåspLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGACCCATGGATGAAGGACCAGATCTTGATCTAGGCCCACCTGTAGATCCAGATGAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyProMetAspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAGGAGGACGCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyGlyGlyArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AspAsnArgGlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCAGCAGCTACGGGCAGCAGAGTTCCATTCCGACAGGACCACCCCAGTAGCATGGGTGTT
                                                                                                     CTCATGGATCGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGT
                                             1802
                                                                                                                                                              1682
                                                                                                                                                                                                                      1622
                                                                                                                                                                                                                                                                                                                                      1502
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1082
                637
                                                                        617
                                                                                                                                 597
                                                                                                                                                                                                                                                                                                           537
                                                                                                                                                                                                                                                                                                                                                                   517
                                                                                                                                                                                                                                                                                                                                                                                                1442
                                                                                                                                                                                                                                                                                                                                                                                                                             497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            317
                                                                                                                                                                                          577
                                                                                                                                                                                                                                                                                1562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 10
CR608666
S
                            밁
                                                     á
                                                                                     문
                                                                                                           S
                                                                                                                                              문
                                                                                                                                                                        Ś
                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                       吊
                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                         Query Match:
                                                                                                                                                                                                                                                                                                                                                      Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REMARK
                                                                                                                                                                                                                                                                                                                                                                   .
80
::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                              183
                                                                                      123
                                                                                                                  58
                                                                                                                                                63
                                                                                                                                                                                                                                    18
                                                                                                                                                                                                        ω
```

8 8 8 8

음 성 음

ş

중 유

밁

ঠ

음 성 음 성 음 성

გ

음 성 음 성

밁

S

음 중 음

음 성 음

```
US-10-791-017A-2 (1-656) x CR608666 (1-2083)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1803 CCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAGGAAGAAGAGGAGGACGTGGA 1862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        638 GlyProGlyLysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       38 GlnGlnSerTyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genoscope.

Direct Submission

Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage :

BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr

- Web : www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 2083)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CR608666 2083 bp m full-length cDNA clone CS0DG004YL23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Faraday Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Li,W.B., Gruber,C., Jessee,
Full-length cDNA libraries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HTC; CNSLT CDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CR608666.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (human)
                                                                                                                                                      ThrThrProThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAla
                                                                                                                                                                                                                                                                                                                                         ThrAlaThrTyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TACAGTGCTTACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TyrSerAlaTyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGly
TyrAspThrThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAla
                                                                                                                                                                                                                                                                                    ACTGCAACCTATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (bases 1 to 2083)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODG004YL23"
/tissue_type="B cells (Ramos complete of the complete of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. .2083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.66e-207
3549.00
100.00%
100.00%
97.69%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Jessee, J. and Polayes, D. braries and normalization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mRNA linear HTC 21-JUL-2004
of B cells (Ramos cell line) of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cell line)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2083
639
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1919
                                                                                                242
                                                                                                                                                                                        97
                                                                                                                                                                                                                                                                                    182
                                                                                                                                                                                                                                                                                                                                                                                77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   57
```

										258 723	238 663	218 603	198 543	178 483	158 423	138 363	118 303	243
euProProArg(BerLysLeuLys GCAAACTTAAA(31uAspProPro? 3AAGACCCACCC	IleHisIleTyrl	\laAspPhePhel CAGACTTCTTT	SerAspAsnSeri	GlyProMetAsp(GGACCCATGGAT(GlyGlyGlyArgo	AspasnargGlyi araaccegegcu	TyrGlyGlnGlu argggcaggag	SerSerSerTyr AGCAGCAGCTAC	ThrSerTyrPro	SerSerTyrGlyd AGCAGCTATGGA	ThrGlnProThr	SerTyrProMet(TyrAsnGlnPro	ArgProGlnAspo	TyrglyThrgln: ATGGCACTCAG	
	/alserLeuAlaA #TCTCCCTTGCTC	GluaspProProThralaLysalaAlaValGluTrpPheAspGlyLysaspPheGlnGly 	JeuAspLysGluT TGGACAAGGAAA	ysGlnCysGlyV AGCAGTGTGGGG	\lalleTyrValG CAATTTATGTAC	31yProMetAspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAsp 357 	lyglymetglys :gregaareegca	argglyargglyg agggaagaggg	\rGlyGlnGluSerGlyGlyPheSerGl 	erSerTyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyVal 	erTyrProProGlnThrGlySerTyrSerGlnAla 	lnGlnSerSerT agcagagtagct	98 ThrGlnProThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnP 	lnProValThrA AGCCAGTCACTG	SerLeuGlyTyrG \GCCTAGGATATG	31yAsnLysProT GAAACAAGCCCA	ProAlaTyrProA CTGCTTATCCAG	
etProProProLe	rglyslysprop GAAGAAGCCTC	laValGluTrpP CCGTGGAATGGTT	hrglyLyBProLy CAGGAAAGCCCAJ	alvallysMetA TTGTTAAGATGAJ	lnGlyLeuAsnAı AAGGATTAAATG	euAspLeuGlyP TGATCTAGGCC	erAlaGlyGluA; GCGCTGGAGAGC	lyPheAspArgG ATTTGATCGTG	erGlyProGlyG CCGGACCAGGAG	erPheArgGlnA CATTCCGACAGG	erTyrSerGlnA: CCTACAGCCAAG	yrGlyGlnGlnS ATGGTCAACAAA	erSerTyrSerG GCAGTTACTCTC	laProProSerT	lyGlnSerAsnT acagagtaact	hrGluThrSerG CTGAGACTAGTC	laTyrGlyGlnG	
ewArgGlyGlyPı 	roMetAsnSerMe CAATGAACAGTAT	heAspGlyLysAs TGATGGGAAAG <i>I</i>	ysGlyAspAlaTh hAGGCGATGCCAC	9nLysArgThrG] CAAGAGAACTGO	spSerValThrLe ACAGTGTGACTCT	roProValAspP; ACCTGTAGATCO	rgGlyGlyPheAs AGGTGGCTTCAJ	lyGlyMetSerAj AGGCATGAGCAC	luAsnArgSerMe aGAACCGGAGCAI	BpHiBProSerSe ACCACCCCAGTAC	laProSerGlnTyrSe CTCCAAGTCAATATAC	erSerTyrGlyG CAGCTATGGGC	lnGlnAsnThrT\ AGCAGAACACCTI	YrProProThrSt	YrSerTyrProg: ACAGTTATCCCC	lnProGlnSerSt	lnProAlaAlaTI agccagcagcca	
oGlyGlyPro (tArgGlyGly (PPheGlnGly (hrValSerTyr 4 AGTGTCCTAT 1	yGlnProMet 3	PUASPASPLEU 3	coAspGluAsp 3 AGATGAAGAC 1	anLysProGly 3 ATAAGCCTGGT 9	gglyglyarg 3 aegreeecee 9	tSerGlyPro 2 GAGTGGCCCT 8	erMetGlyVal 2 CATGGGTGTT 7	/rSerGlnGln 2 \TAGCCAACAG 7	8 등	ଖ=3	H=H	워프스	뭐그두	₽=#	TCAGTCTGCA 3
177	157 1322	137 1262	#17 1202	397 L142	377 L082	357 L022	337 962	317 902	297	277 782		23 <i>7</i> 662	217 602	197 542	177 482	157 422	137 362	

Ş

8 8 8 8

밁

S

8 8 8 8 8 8 8 8

중 유

S

5

8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 11
AK034755
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                           JOURNAL
MEDLINE
                                                                                                                                                                                                                                   TITLE
                                                                                                                                                           PUBMED
                                                                                                                                                                                                                                                                                                               PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 498
                                                                                                                                                                         prepare full
Genome Res.
20499374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2373 bp mRNA linear HTC 03-APR-2004 Mus musculus 12 days embryo embryonic body between diaphragm region and neck cDNA, RIKEN full-length enriched library, clone:9430031M11 product:Ewing sarcoma homolog, full insert sequence.

AK034755
Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Pujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, B., Wataliki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y.
                                                                                                                                                                                       Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muzamatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                             99279253
10349636
                                                                                                                                                                                                                                                                                                                                               Carminci, P. and Hayashizaki, Y.
High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AK034755.1 GI:26084174
                                                                                                                                                         .1042159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTGGGGGGCCCCCTGGACCTTTGATGGAACAGATGGGAAGAAGAAGAAGAAGAAGACGTGGA 1862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyPheArgGlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGly 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuMetAspArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyGlyProGlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGCCACCCCGTGAGGGCAGAGGCATGCCACCACCACTCCGTGGAGGTCCAGGAGGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGACCTGGAAAAATGGATAAAGGCGAGCACCGTCAGGAGCGCGCAGAGATCGGCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyProGlyLysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ProGlyGlyProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCTTCCGTGGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCATGGATCGTGGTGGTCCCGGTGGAATGTTCAGAGGTGGCCGTGGTGGAGACAGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProProGlyGlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ThrGluCysAsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPhePro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGAGCTGGAGACTGCCCAATCCGGGTTGTGGAAACCAGAACTTCGCCTGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ArgAlaGlyAspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ProProArgGlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAGGTCCTGGGGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGATAGAGGAGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCCCGGGTGGTGATCGTGGCAGAGGTGGCCCTGGTGGCATGCGGGGAGGAAGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAGAGTGCAACCAGTGTAAGGCCCCAAAGCCTGAAGGCTTCCTCCCGCCACCCTTTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAP trapper.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1919
                                                                                                                                                                                                               genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 517
```

```
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
 Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                              Score:
                                                                                              Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                polyA_site
                                                                                                                                                                                                         polyA_signal
                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bource
                                                                               о
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LL Nature 420, 563-573 (2002)

18 6 (bases 1 to 2373)

18 6 (bases 1 to 2373)

18 Adachi, J., Alzawa, K., Akimura, T., Arakawa, T., Bono, H., Carninci, P., Fukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hashizume, W., Hayashida, K., Hayatsu, N., Hirancho, K., Hiraoka, T., Hirozana, T., Hayashida, K., Imotani, K., Ishii, Y., Itoh, M., Kagawa, I., Kasukawa, T., Katoh, H., Kawai, J., Kojima, Y., Kondo, S., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Murata, M., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Ohsato, N., Nakamura, M., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Ohsato, N., Ohazaki, Y., Saito, R., Saitoh, H., Sakai, K., Sakazume, N., Sano, H., Sasaki, D., Shibata, K., Shinagawa, A., Shiraki, T., Sogabe, Y., Tagawa, A., Tayana, A., Takahashi, F., Takaku-Akahira, S., Takeda, Y., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A., Muramatsu, M., and Hayashizaki, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequencing p
Genome Res.
20530913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Direct Submission
Submitted (16-JUL-2001) Yoshihide Hayashizaki, The Institute of Submitted (16-JUL-2001) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokoham Kanagawa 230-0045, Japan (E-mailigenome-resegsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Group Phase I & II Team.
Analysis of the mouse transcriptome of 60,770 full-length cDNAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      URL:http://genome.gsc.riken.jp/
URL:http://fantom.gsc.riken.jp/.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      prepare mouse tissues.
Please visit our web site for further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Rike Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RIKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The FANTOM Consortium and the RIKEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Functional
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FANTOM Consortium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The RIKEN Genome Exploration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nature 409,
                                                                                                                                                                      /note="putative" 2373
                                                                                                                                                                                                                           evidence: BLASTN, putative"
                                                                                                                                                                                                                                                                                 /clone_lib="RIKEN full-length
/dev_stage="12 days embryo"
43.__2011
                                                                                                                                                                                                                                                                                                                                                                                                                                organism="Mus musculus"
/mol_type="mRNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                              /note="Ewing sarcoma homolog (MGD|MGI:99960, GB|NM_007968
evidence: BLASTN, 99%, match=2172)
                                                                                                                                                     /note="putative"
                                                                                                                                                                                                                                                                                                                                                         tissue_type="embryonic body between diaphragm region and
                                                                                                                                                                                                                                                                                                                                                                                clone="9430031M11"
                                                                                                                                                                                                                                                                                                                                                                                               'db_xref="FANTOM_DB:9430031M11"
'db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         annotation of a full-length mouse cDNA collection , 685-690 (2001)
   2.64e-206
3530.50
98.48%
97.11%
97.18%
                 Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Research Group
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               based
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genome
                                                                                                                                                                                                                                                                                                                      enriched
 2373
638
9
8
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엺
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Exploration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Phase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               functional
                                                                                                                                                                                                                                                                                                                      mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             II Team and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Yokohama,
8
                                    밁
                                                                     8
                                                                                                              밁
                                                                                                                                         S
                                                                                                                                                                                      밁
                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-791-017A-2 (1-656) x AK034755 (1-2373)
   340
                                                                                                              943
                                                                                                                                               300
                                                                                                                                                                                        883
                                                                                                                                                                                                                                                               823
                                                                                                                                                                                                                                                                                                  260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                583
                                                                                                                                                                                                                           280
                                                                                                                                                                                                                                                                                                                                       763
                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                               703
                                                                                                                                                                                                                                                                                                                                                                                                                                                  220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <sup>`</sup>80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
tAspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAs 360
                                                                                                          rTyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGl
                                                                                                                                                                                                                                                                                                                                                          rProProGlnThrGlySerTyrSerGlnAlaProSerGlnTyrSerGlnGlnSerSerSe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    oMetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySerTyrPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nAspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTATGGAACCTATGGACAGCCTACTGATGTCAGCTATACTCAGGCTCAGACCACTGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGln-AlaTyrGlyGlnGlnSe
                                                              yArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMe
                                                                                                                                                                                                         nGluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnAr 300
                                                                                                                                                                                                                                                                                                                                                                                                                                    rGlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyrGlyGlnGlnProProThrSerTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACTAGTTACGATCAGAGCAGTTACTCTCAGCAGAACACCTATGGGCAGCCGAGCAGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          oThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATGCAGCCAGCCACCTCCATCTTATCCTCCTACCAGCTACTCCTCTTCACAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rGlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rThrThrAlaThrValThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyTh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACTGCCCCGCAGGCGTACAGCCAGCCTGTGCAGGGATATGGCACTGGGACTTATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              oThrAlaProGinAlaTyrSerGinProValGlnGlyTyrGlyThrGlyAlaTyrAspTh 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTACGGGCAGACTGCATATGCAACTTCTTACGGACAGCCTCCCACTGGTTATAGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TACACCGCCCAGCCAACTCAAGGATATGCACAGACCACCCAGGNCATATGGGCAACAAAG
                                                                                                                                                                                                                                                           CTACGGGCAGCAGAGTTCATTCCGACAGGACCACCCCAGTAGCATGGGTGTTTATGGGCA
                                                                                                                                                                                                                                                                                                                                       CCCCCCCAGACTGGATCCTACAGCCAGGCTCCAAGTCAATATAGCCAACAGAGCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                               TGGACAACAGAGTAGCTATGGTCAACAAAGCAGCTATGGGCAGCAGCCTCCTACTAGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCCAGCCTAGGATATGGACAGAGTAACTACAGCTATCCCCAGGTACCTGGGAGCTACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAGCCTGCCTACCCCACCTATGGCCAGCAGCCAACAGCCACCGCACCTACCAGACCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACCACTGCTACAGTCACCACAACGCAGGCCTCTTACGCAGCTCAGACTGCATATGGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rTyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rTyrG1yThrTyrG1yG1nProThrAspVa1SerTyrThrG1nA1aG1nThrThrA1aTh
                                      -GCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps:
                                    1059
                                                                                                              1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         342
                                                                         340
                                                                                                                                                 320
                                                                                                                                                                                      942
                                                                                                                                                                                                                                                             882
                                                                                                                                                                                                                                                                                                280
                                                                                                                                                                                                                                                                                                                                       822
                                                                                                                                                                                                                                                                                                                                                                          260
                                                                                                                                                                                                                                                                                                                                                                                                               762
                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           102
```

```
CR604639
LOCUS
                 KEYWORDS
SOURCE
                                               ACCESSION
VERSION
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                    밁
                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                  DEFINITION
 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                          1780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1060
                                                                                                                                                                                    1960
                                                                                                                                                                                                                                                                                                                       1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1300
                                                                                                                                                                                                                                                      1900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1180
                                                                                                                                                                                                                     640
                                                                                                                                                                                                                                                                                      620
                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                                       580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   400
Homo
          CR604639.1 GI:50485446
HTC; CNSLT_CDNA.
Homo sapiens (human)
                                                                CR604639 2236 bp n full-length cDNA clone CS0DJ013YNO88 Cot 10-normalized of Homo sapiens (CR60463)
                                                                                                                                                                                    GAAAATGGATAAAGGCGAGCACCGTCAGGAACGCAGAGACCGGCCCTAC 2008
                                                                                                                                                                                                     YLYSMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656
                                                                                                                                                                                                                                                                          yProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGl
                                                                                                                                                                                                                                                                                                                     AGGTGGCCGTGGAATGTACCGAGGTGGCTTTGGTGGAGGAAGACGAAGGTGGTCCTGGGGG
                                                                                                                                                                                                                                                                                                                                          gGlyGlyArgGlyMetAspArgGlyGlyFheGlyGlyGlyArgArgGlyGlyFroGlyGl
                                                                                                                                                                                                                                                                                                                                                                                                           pArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAppArgGlyGlyPheAr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              yGlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAACCAGTGTAAGGCCCCTAAGCCCGAGGGCTTCCTCCCGCCACCCTTTCCACCTCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8A8nGlnCy8Ly8AlaProLy8ProGluGlyPheLeuProProProPheProProProGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        oGlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProAr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                oArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       uLysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   oProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    eTyrLeuAspLysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ePheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGTGCAATTTATGTGCAAGGATTAAATGACAATGTGACTCTGGATGATCTGGCAGACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nSerAlaIleTyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCTCCTGGACCTTTAATGGAACAGATGGGAGGAAGAAGAGGCGGACGTGGAGGACCTGG
                                                                                                                                                                                                                                                                                                                                                                                        CCGTGGTGGTCCTGGAGGAATGTTCAGAGGTGGCAGAGGTGGAGACAGAGGAGGCTTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGACTGGCAGTGTCCCAATCAGGGCTGTGGAAACCAGAACTTCGCTTGGAGAACAGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             yAspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGGCCCCGAGGCTCCAGAGGAAACCCCCTCTGGAGGAGGAAATGTCCAGCACCGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGAGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGACAGAGGGGGGCTTCCCTCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAAAGTGTCTCTTGCCCGAAAGAAGCCTCCAATGAACAGCATGCGGGGAGGCATGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCAACTGCAAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGAAGCAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTACCTGGATAAGGAGACAGGAAAGCCTAAAGGGGACGCCACAGTGTCCTATGAAGATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTTAAGCAGTGTGGGGTTGTCAAGATGAACAAGAGAACTGGACCAACCCATGATCCATAT
sapiens
                                                                                  (human)
                                                                                                mRNA linear HTC 21-JUL-20
8 of T cells (Jurkat cell line)
                                                                                                                 HTC 21-JUL-2004
                                                                                                                                                                                                                                                                                                                       1899
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1119
                                                                                                                                                                                                                                                      1959
                                                                                                                                                                                                                                                                                      640
                                                                                                                                                                                                                                                                                                                                                       620
                                                                                                                                                                                                                                                                                                                                                                                        1839
                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                        δ
                                                                                밁
                                                                                                              Ś
                                                                                                                                                   맑
                                                                                                                                                                             S
                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                     닭
                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                      片
                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
Best Local Similarity:
Query Match:
               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-791-017A-2 (1-656) x CR604639 (1-2236)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                379
                                                                                                                                                   319
                                                                                                                                                                                101
               439
                                                 141
                                                                                                                 121
                                                                                                                                                                                                                   259
                                                                                                                                                                                                                                                                                                                                                       139
                                                                                                                                                                                                                                                                                      199
                                                                                                                                                                                                                                                   81
                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                      41
                                                                                                                                                                                                                                                                                                                                                                                                                       79
                                                                                                                                                                                                                                                                                                                                                                                                                                                     21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19 ATGGCGTCCACGGATTACAGTACCTATAGCCAAGCTGCAGCGCAGCAGGGCTACAGTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submission

Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage :

Submitted (20-JUL-2004) Genoscope - Centre National de Sequencage :

BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr

BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr

- Web : www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo (dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlnGlyTyrSerAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 2236)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D. 11, W.B., Gruber,C., Jessee,J. and Polayes,D. 11, Liength cDNA libraries and normalization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished
Contact: Feng Liang Email: fliang@lifetech.com URL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genoscope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
                                    AspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyrAsnGln
                                                                                                GlnProAlaTyrProAlaTyrGlyGlnGlnProAlaAlaThrAlaProThrArgProGln
                                                                                                                                                                                                                                                                                                       TyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThrThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                       TACACCGCCCAGCCCACTCAAGGATATGCACAGACCACCCAGGCATATGGGCAACAAAGC
               GATGGAAACCACTGAGACTAGTCAACCTCAATCTAGCACAGGGGGTTACAACCAG
                                                                                                                                                                                  ThrThrAlaThrValThrThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyrGlyThr 120
                                                                                                                                                                                                                                        ThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyrAspThr
                                                                                                                                                                                                                                                                                                                                                                          TyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAlaThr
                                                                                                                                                                                                                                                                                                                                                                                                                                            TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGlnSer
                                                                                                                                                   ACCACTGCTACAGTCACCACCCAGGCCTCCTATGCAGCTCAGTCTGCATATGGCACT
                                                                                                                                                                                                                   ACTGCCCCCCAGGCATACAGCCAGCCTGTCCAGGGGTATGGCACTGGTGCTTATGATACC
                                                                                                                                                                                                                                                                                      TATGGGCAGACCGCCTATGCAACTTCTTATGGACAGCCTCCCACTGGTTATACTACTCCA
                                                                                                                                                                                                                                                                                                                                                       TATGGAACCTATGGACAGCCCACTGATGTCAGCTATACCCAGGCTCAGACCACTGCAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 2236)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   day Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clome="CSODJ013YN08"
/tissue_type="T cells (Jurkat cell line)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .2236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9.74e-202
3455.50
96.34%
96.34%
95.11%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2236
632
0
1
1
24
2
```

ACAAGACCGCAG

438 140 378 318 100 258 80 198 60 138 40 78

160 498

ဂ္ဂ

8 8 8 8 8 8 8

520 1575 540	501 GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
500 1515	81 GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProP
480 1455	461 ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyFroGl
460 1395	roProMetAsnSerMet <i>F</i>
440 1335	21 ProThralaLysAlaAlaValGluTrpPheAsp
420 1275	401 Tyrleuasplysgluthrglylysprolysglyaspalathrvalsertyrgluasppro
400 1215	381 PheLysGlnCysGlyValValLysMetAsnLysArgThrGlyGlnDroMetIleHisIle
380 1155	361 SeralaileTyrvalGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhe
360 1095	341 AspGluGlyProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsn
340 1035	321 ArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMet
320 978	301 GlyargGlyargGlyGlyPheAspArgGlyGlyMetSerArgGlyGlyArgGlyGlyGlyGlyGlyGlyGlyGlyGlyGlyGlyGlyGlyG
300 918	281 GluSerGlyGlyPheSerGlyProGlyGluAsnArgSerMetSerGlyProAspAsnArg
280 858	261 TyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSerMetGlyValTyrGlyGln
260 798	
240 738	
220 678	201 ThrSerTyrAspGlnSerSerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
200	181 MetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThrGlnPro
180	

8 8 8 8 8 8 8 8 8 8 8 8

음 성 음

S

음 성 음

8 8 8 8 8 8

& & &

TITLE JOURNAL REFERENCE	MEDLINE PUBMED REFERENCE AUTHORS	TITLE	REFERENCE AUTHORS	JOURNAL MEDLINE PUBMED	TITLE	MEDLINE PUBMED REFERENCE	AUTHORS TITLE JOURNAL	RRPRRRNCR	VERSION KEYWORDS SOURCE	ACCESSION	RESULT 13 AK049743 LOCUS DEFINITION	18	on.	Db 18	Db 18	Qy 6	Db 1756	Q y 5	Qy 5 Db 16	Db 1636	Qy 5	Db 1576
sortium. . annotation of a full-length), 685-690 (2001)	20530913 11076861 4 The RIKEN Genome Exploration Research Group Phase II Team and the	Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Wattahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashizaki, Y. RIKEN integrated sequence analysis (RISA) system384-format sequencing pipeline with 384 multicapillary sequencer	C., Itoh, M., Aizawa, K., Akiyama, J., Nishi, K., Ishii, Y., Nakamura, S., B. Mattumort Y. Cala	104215	P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. tion and subtraction of cap-trapper-selected cDNAs to	99279253 10349636 2	Carninci, P. and Hayashizaki, Y. High-efficiency full-length cDNA cloning Meth. Enzymol. 303, 19-44 (1999)		AK049743.1 GI:26093614 HTC; CAP trapper: Mus musculus (house mouse) Mus musculus (house mouse)	uct:Ewing sar	AKO49743 2269 bp mRNA linear HTC 03-APR-2004 Mus musculus 12 days embryo spinal cord cDNA, RIKEN full-length	CCGTCAGGAGCGCAGAGATCGGC	41 LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656	21 ProProGlyProLeuMetGluGinMetGlyGlyArgArgGlyGlyArgGlyGlyProGly 640	16 GGTGGCCGGGGCATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGCCCTGGGGGG 1	01 GlyGlyArgGlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyFroGlyGly 620	8=	81 ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg 600	561 GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp 580		541 AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProProProProProGly 560	

٠.

```
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                              RESULT 14
BC043904
                                                                                                 REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
      REMARK
                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                 Snoo
                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1134
                                                                                                                                                                                                                                                                                                                                                                                 1853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        441
                                                                                                                                                                                                                                                                                                                                                                                                              641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         501
                                                                                                                            Xenopus laevis (African clawed frog)
Xenopus laevis
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus; Xenopus.
1 (bases 1 to 2692)
Development, 6100 Exect
20892-7510, USA
NIH-MGC Project
Contact: XGC help desk
                                                                                                                                                                                                                                                                            Xenopus laevis, Simi
IMAGE:5543106, mRNA.
                                                  Submitted (10-JAN-2003) National Institutes of Health, Xenopus Gene Collection (XGC), National Institute of Child Health and Human Development, 6100 Executive Boulevard, Room 4B01, Rockville, MD
                                                                                                                                                                                                                                                                                                               BC043904
                                                                                                 Direct Submission
                                                                                                                 Klein, S. and Strausberg, R.
                                                                                                                                                                                                                                                 BC043904.1 GI:27882646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAACTGCAAAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGAAGCAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyGlyProMetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTGAGGGCAGGGGGATGCCACCACCACTTCGTGGAGGTCCTGGTGGCCCAGGAGGCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAGTGTCTCTTGCCCGAAAGAAGCCTCCAATGAACAGCATGCGGGGAGGCATGCCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyGlyArgGlyMetAspArgGlyGlyBheGlyGlyGlyArgArgGlyGlyProGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyAspArgGlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AsnGlnCysLysAlaProLysProGluGlyPheLeuProProProPheProProProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACTGGCAGTGTCCCAATCCGGGCTGTGGAAACCAGAACTTCGCTTGGAGAACAGAATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGCCCCGAGGCTCCAGAGGAAACCCCCTCTGGAGGAGGAAATGTCCAGCACCGAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyProArgGlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAATGGATAAAGGCGAGCACCGTCAGGAACGCAGAGACCGGCCCTAC 1900
                                                                                                                                                                                                                                                                                                                                                                                                   LysMetAspLysGlyGluHisArgGlnGluArgArgAspArgProTyr 656
                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTCCTGGACCTTTAATGGAACAGATGGGAGGAAGAAGAGGCGGGACGTGGAGGACCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProProGlyProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTGGCCG-GGAATGGACCGAGGTGGCTTTGGTGGAGGAAGACGAGGTGGTCCTGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGTGGTGGTCCTGGAGGAATGTTCAGAGGTGGCAGAGGTGGAGACAGAGGAGGCTTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgGlyGlyProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTGATCGTGGACGAGGTGGCCCTGGTGGCATGCGAGGAGGAAGAGGAGGACTCATGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACCAGTGTAAGGCCCCTAAGCCCGAGGGCTTCCTCCCGCCACCCTTTCCACCCTCCGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AspTrpGlnCysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAGGACCCATGGGTCGCATGGGAGGCCGTGGAGGAGACAGAGGGGGGCTTCCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ArgGluGlyArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LysValSerLeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ProThrAlaLysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeu
                                                                                                                                                                                                                                                                                              2692 bp mRNA
Similar to Ewing sarcoma
                                                                                                                                                                                                                                                                                             linear HTC 04-MAR-2003
breakpoint region 1, clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        440
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-791-017A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
```

```
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Igor Dawid
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortiu
DNA Sequencing by: Genome Sequence Centre,
                                                                             Steven Jones, Jennifer Asano, Ian Bosdet, Yaron Butterfield, Susanna Chan, Readman Chiu, Chris Fjell, Erin Garland, Ran Guin, Letticia Hsiao, Martin Krzwinski, Reta Kutsche, Oliver Lee, Soo Sen Lee, Victor Ling, Carrie Mathewson, Candice McLeavy, Steven Ness, Pawan Pandoh, Anna-Liisa Prabhu, Parvaneh Saeedi, Jacqueline Schein, Duane Smailus, Michael Smith, Lorraine Spence, Jeff Stott, Michael Thorne, Miranada Tsai, Natasa van den Bosch, Jill Vardy, Carrie Parker, Natasa van den Bosch, Jill Vardy, Rechand State, Natasa van
George Yang,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         info@bcgsc.bc.ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BC Cancer Agency, Vancouver, BC,
Scott Zuyderduyn, Marco Marra.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Canada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Consortium (LLNL)
```

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 96 Row: j Column: 22
This clone was selected for full length sequencing because it passed the following selection criteria: Similarity but not identity to protein clone has the following problem: Location/Qualifiers retained intron

1. .2692

/organism="Xenopus laevis" /mol_type="mRNA" /db_xref="taxon:8355" /clone="IMAGE:5543106"

/tissue_type="Embryo, stage
/clone_Tib="NICHD_XGC_Emb4"
/lab_host="DH10B" 31/32, Xenopus"

note="Vector: pCMV-SPORT6"

Percent Similarity: Best Local Similarity: 3.1e-147 2568.00 79.45% 71.49% 70.69% Length: Matches: Gaps: Mismatches: Indels: Conservative:

(1-656)x BC043904 (1-2692)

		•	
AGA 430		0 371	문
Arg 138	-B	/ 119	δ
TAT 370		0 311	뮍
Yr 118	AspThrThrAlaThrValThrThrGlnAlaSerTyrAlaAlaGlnSerAlaTyr	, 99	δ
TAT 310	GCTCCAGCTGCTCCCCAAGCCTATAGCCAGCCCATACAAGGCTATGGTTCTACAGGCT	0 251	밁
Tyr 98	ThrProThrAlaProGlnAlaTyrSerGlnProValGlnGlyTyrGlyThrGlyAlaTyr	79	5
ACT 250		0 191	뮍
Thr 78	ThrTyrGlyGlnThrAlaTyrAlaThrSerTyrGlyGlnProProThrGlyTyrThr	/ 60	Ş
3CC 190 ·	AGTTATGGCACCTATGCCCAGCCCAGTGATGCCAGTTACACACAGACAG	0 131	밁
Ala 59	SerTyrGlyThrTyrGlyGlnProThrAspValSerTyrThrGlnAlaGlnThrThrAla	/ 40	Ş
CAG 130	TATACTGCACAGCCAGCTCAAGGCTACACTCAGACTGCACAGGCAACTTATGGACAGCAG	0 71	뮍
31n 39	TyrThrAlaGlnProThrGlnGlyTyrAlaGlnThrThrGlnAlaTyrGlyGlnGln	, 21	Ş
3CA 70		0 11	멍
Ala 20	MetAlaSerThrAspTyrSerThrTyrSerGlnAlaAlaAlaGlnGlyTyrSerAla	_	Ş
			1

```
1376
                                                                                                                                                                                                                                                                          1256
                                                                                                                                                                                                                                                                                                                                                     1196
                                                                                                                                                                                                                                                                                                                                                                                                                               1136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1022
                                                                            448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             491
                                                                                                               GluTrpPheAspGlyLysAspPheGlnGlySerLysLeuLysValSerLeuAlaArgLys
                                                                                                                                                                                                                   LysProLysGlyAspAlaThrValSerTyrGluAspProProThrAlaLysAlaAlaVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProProLeuArgGlyGlyProGlyGlyProGlyGlyProMetGlyArgMet
                                      AAGCCTTTGCTAGGTAGCATGCGAGGGGGGTTGCTTTTACGTGACAGCAGAGGGCAGCCA
                                                                      LysProProMetAsnSerMetArgGlyGlyLeuProProArgGluGlyArgGlyMetPro
                                                                                                                                                                                                                                                                        AAGATAAACAAGCGGACAGGCCAACCACTTGTAAACATTTTTACGGACAAGGAAACCGGG
                                                                                                                                                                                                                                                                                            LysMetAsnLysArgThrGlyGlnProMetIleHisIleTyrLeuAspLysGluThrGly
                                                                                                                                                                                                                                                                                                                                                     CTAAATGAAGATGTAACTGTAGAAGAAATAGTGGATTTCTTCAAACACTGTGGTGATGTC
                                                                                                                                                                                                                                                                                                                                                                                       LeuAsnAspSerValThrLeuAspAspLeuAlaAspPhePheLysGlnCysGlyValVal
                                                                                                                                                                                                                                                                                                                                                                                                                             -----ProValAspProAspGluAspSerAspAsnSerAlaIleTyrValGlnGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTAAGCCTGGTGGACTCTTGGATGATGACCAGATCTTGATTTAGGACCCCCTATGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cereeredade---eerreeredreeredearedec---eeredadarcdaecreectre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgGlyGlyArgGlyGlyArgGlyGlyMetGlySerAlaGlyGluArgGlyGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MetSerGlyProAspAsnArgGlyArgGlyArgGlyGlyPheAspArgGlyGlyMetSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AMAAGTCCCTATGGCCAGGAGCCTCATCAGGGTTTCTCCAGCTCTGGCGATAATCGTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetGlyValTyrGlyGlnGlu---SerGlyGlyPheSerGlyProGlyGluAsnArgSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SerGlnGlnSerSerSerTyrGlyGlnGlnSerSerPheArgGlnAspHisProSerSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTCCTACCAGTTACCCACCTCCTTCATCCTATAGCAGTCAGCCACCAGGACAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProProThrSerTyrProProGlnThrGlySerTyr---SerGlnAlaProSerGlnTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTCAACAAAGTGGATATGGCCAACAGAGTAGCTACCAGGCACCCCAACAGCAGCAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyGlnGlnSerSerTyrGlyGlnGlnSerSerTyr------GlyGlnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCTATGGACAGCAAACTTCATATTCTCAGCAGGGCTCCTATGGACAGCCAAGTAGTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TyrProMetGlnProValThrAlaProProSerTyrProProThrSerTyrSerSerThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCCAGCCTAGCATTGGCTATAGTCAAAGCAGCTACAGCTACCCTCAAGTTGCTGCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AsnGlnProSerLeuGlyTyrGlyGlnSerAsnTyrSerTyrProGlnValProGlySer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCTCAAGATGGAAGCAAGCAAGCAGCAGTACCAATCAGCCCCCACCAAGTACGACGACATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProGlnAspGlyAsnLysProThrGluThrSerGlnProGlnSerSerThrGlyGlyTyr
                                                                                                                                                                                             AAGCCCAAAGGAGATGGCACTGTGTCTTTTGAAGACCCACCTTCAGCTAAGACTGCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCCATCAAGCTATGAACAGAGCTCCTATTCCCCAGCCAAGTTCCTACACCCAGCAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ----SerTyrSerGlnGlnAsnThrTyrGlyGlnProSerSerTyr
  487
                                                                                                                                                                                                                                                                                                                                                                                                                             1195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021
                                                                            467
                                                                                                                   1435
                                                                                                                                                     447
                                                                                                                                                                                             1375
                                                                                                                                                                                                                                  427
                                                                                                                                                                                                                                                                        1315
                                                                                                                                                                                                                                                                                                              407
                                                                                                                                                                                                                                                                                                                                                     1255
                                                                                                                                                                                                                                                                                                                                                                                           387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          206
```

S

8 8 8 8 8

δ B

중 음

중 유

 음 성 음 성 음

5 B 5

음 성 음 성 음

ঠ

중 유

5

문

よ

문

```
REFERENCE
AUTHORS
TITLE
JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 15
AK014366
LOCUS
DEFINITION
                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                          JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                488
Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsunoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J.,
                                                                                                                                                      Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AK014366 1379 bp mRNA linear HTC of Mus musculus 17 days embryo head cDNA, RIKEN full-length library, clone:3300002D11 product:Ewing marcoma homolog,
                                                                                                                                                                                                                                                                                                     Carninci, P. and Hayashizaki, Y. High-efficiency full-length cDNA Meth. Enzymol. 303, 19-44 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                            AK014366
AK014366.1 GI:12852167
HTC; CAP trapper.
Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                               Mug
                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                             20499374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   insert
                                                                                                                            .1042159
                                                                                                                                                                                                                                                                      10349636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GluHisArgGlnGluArgArgAspArgProTyr
:::|||||||||||||||
GACCATCGCCAGGAACGCAGAGAGAGACCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAACTTGGTGGAAGAGTTGGTGGTGGAAGACGAGGTGGTCCCCAGCAAAATGGATAAGAGT 1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlnMetGlyGlyArgArgGlyGly-----ArgGlyGlyProGlyLy8MetA8pLy8Gly
|||:::||||||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyPlyProProGlyProLeuMetGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArgGlyGlyArgGlyMetAspArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProGluGlyPheLeuProProProPheProProProGlyGlyAspArgGlyArgGlyGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCysAsnGlnCysLysAlaProLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AsnProSerGlyGlyAsnValGlnHisArgAlaGlyAspTrpGlnCysProAsnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlyGlyArgGlyGlyAspArgGlyGlyPheProProArgGlyProArgGlySerArgGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCACCTCTCCGT---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAspArgGlyGlyProGlyGlyMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGATGTGGAAAACCAAAATTTTGCTTGGAGAACAGAATGTAACCAGTGTAAGGCTCCTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGTGGCCGAGGAGACCGTGGGGATTCATGCCAAGAGGACCACGTGGACCACGAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCCCAGTT---AGCGGTAATGTGCAGCACAGGGCTGGTGACTGGCAGTGTCCCAACCCG
                                                                                                                                                                                                                                                                                                                                                                                                               musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -GGATTTGGTGGAGGAAGGAGGAGGACCCCCAGGTCCCCTGGTCCCCTTATGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ·GGCATGAGAGGAGGCAGA----GGCCTAATGGACCGTGGAGGGCCT----GGTATG
                                                                                                                                                                                                                                                                                                                                                                            Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTCCTTTCCCACCTCAAGGAGGAGAACGTGGAAGAGGTGGG
                                                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata;
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                       cloning
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -GGAGGTCCCATGGGTCGCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCCGTGGCATGGACAGA
                                                                                                                                                                                                                                                                                                                                                                            Euteleostomi;
; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1528
```

```
JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                 CDS
                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   L Nature 420, 563-573 (2002)

B 6 (bases 1 to 1379)

B 6 (bases 1 to 1379)

S Adachi, J., Aizawa, K., Akahira, S., Akimura, T., Arai, A., Aono, H., Arakawa, T., Bono, H., Carninci, P., Fukuda, S., Fukunishi, Y., Furuno, M., Hanagaki, T., Hara, A., Hayatsu, N., Hiramoto, K., Firuno, M., Hanagaki, T., Hara, A., Hayatsu, N., Hiramoto, K., Hiramoka, T., Kori, K., Ishii, Y., Itoh, M., Izawa, M., Kasukawa, T., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C., Saito, H., Saito, R., Sakai, C., Sakai, K., Sano, H., Sasaki, D., Saito, H., Saito, R., Sakai, C., Sakai, K., Sano, H., Sasaki, D., Shibata, K., Shibata, Y., Shihagawa, A., Takahashi, F., Tanaka, T., Tejima, Y., Toya, T., Yamamura, T., Yasunishi, A., Yoshida, K., Yoshino, M., Muramatsu, M. and Hayashizaki, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suchiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (B-mail:genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
Please_visit our web site (http://genome.gsc.riken.jp/) for further
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y. RIKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Group Phase I & II Team.

Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FANTOM Consortium Functional annotal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nature 409,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The RIKEN Genome Exploration Research Group Phase II Team and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The FANTOM Consortium and the RIKEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11076861
/codon_start=3
/proteIn_id="BAB29301.1"
/db_xref="GI:12852168"
/translation="LOSAGERGGFNKPGGPMDEGPDLDLGLPIDPDEDSDNSAIYVQG
LNDNVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKA
                                                                                                                                                                                             /tlessue_type="head"
/tlessue_type="head"
/clone_lib="RIKEN full-length enriched mouse cDNA library"
/day stage="17 days embryo"
                                                                                                                                                /note="unnamed protein product; Ewing sarcoma homolog
                                                                                                                                                                                                                                                                                                                                               mol_type="mRNA"
|strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                       db_xref="FANTOM_DB:3300002D11"
                                                                                                                                                                                                                                                                                                                                                                                          organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             annotation of a full-length mouse cDNA collection, 685-690 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Exploration Research
  S
                                             밁
                                                                                   Ś
                                                                                                                                                                S
                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                밁
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멾
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-791-017A-2 (1-656) x AK014366 (1-1379)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polyA_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       polyA_signal
                                                                                                                                  663
                                                                                                                                                                         544
                                                                                                                                                                                                                      603
                                                                                                                                                                                                                                                                                                       543
                                                                                                                                                                                                                                                                                                                                                  504
                                                                                                                                                                                                                                                                                                                                                                                            483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                364
                                             723
                                                                                       564
                                                                                                                                                                                                                                                              524
                                                                                                                                                                                                                                                                                                                                                                                                                                       484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        344 ProAspLeuAspLeuGlyProProValAspProAspGluAspSerAspAsnSerAlaIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     324 MetGlySerAlaGlyGluArgGlyGlyPheAsnLysProGlyGlyProMetAspGluGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 CTGGGCAGCGCTGGAGAGCGAGGTGGCTTCAATAAGCCTGGTGGACCCATGGATGAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TyrValGlnGlyLeuAsnAspSerValThrLeuAspAspLeuAlaAspPhePheLysGln
                                                                                                                                                           LysAlaProLysProGluGlyPheLeuProProProProProProProClyGlyAspArg
                                                                                                                                                                                                                                                                                                                                  GlySerArgGlyAsnProSerGlyGlyGlyAsnValGlnHisArgAlaGlyAspTrpGln
  ProGlyGlyMetPheArgGlyGlyArgGlyGlyAspArgGlyGlyPheArgGlyGlyArg
                                                                            GlyArgGlyGlyProGlyGlyMetArgGlyGlyArgGlyGlyLeuMetAspArgGlyGly
                                                                                                                                                                                                                                                 CysProAsnProGlyCysGlyAsnGlnAsnPheAlaTrpArgThrGluCysAsnGlnCys
                                                                                                                                                                                                                                                                                                                                                                                                                     MetGlyArgMetGlyGlyArgGlyGlyAspArgGlyGlyPheProProArgGlyProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ArgGlyMetProProProLeuArgGlyGlyProGlyGlyProGlyGlyProGlyGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTGCCCGAAAGAAGCCTCCAATGAACAGCATGCGGGGAGGCATGCCACCTCGTGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LysAlaAlaValGluTrpPheAspGlyLysAspPheGlnGlySerLysLeuLysValSer
                                                                                                                                                                                                                                                                                                         GGCTCCAGAGGAAACCCCTCTGGAGGAGGAAATGTCCAGCACCGAGCTGGAGACTGGCAG
                                                                                                                                                                                                                                                                                                                                                                                            ATGGGTCGCATGGGTGGCCGTGGAGGAGGAGAGGGGGCTTCCCTCCAAGAGGGCCCCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuAlaArgLysLysProProMetAsnSerMetArgGlyGlyLeuProProArgGluGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGGCTGCCGTGGAATGGTTTGATGGGAAAGATTTTCAAGGAAGCAAACTTAAAGTGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGGAGACAGGAAAGCCTAAAGGGGACGCCACAGTGTCCTATGAAGATCCACCAACTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LysGluThrGlyLysProLysGlyAspAlaThrValSerTyrGluAspProProThrAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CysGlyValValLysMetAsnLysArgThrGlyGlnProMetIleHisIleTyrLeuAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAGATCTTGATCTAGGCCTTCCTATAGATCCCGATGAAGACTCTGACAACAGTGCAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGGGGATGCCACCACTTCGTGGAGGTCCTGGTGGCCCAGGAGGCCCTGGAGGACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATGTGCAAGGATTAAATGACAATGTGACTCTGGATGATCTGGCAGACTTCTTTAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                {	t RGGRGMDRGGFGGRRGGPGGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY"}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGMPPREGRGMPPLRGGPGGPGGPGGP
MGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1351. .1356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4.95e-105
1874.00
99.70%
98.50%
51.58%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1379
328
4
1
0
```

483

422 463 362 443 302 423 242 403 182 383 122 363 62

Search Job tim	рь	Ş	Ф	Ş	Ф	Ş	Db
Search completed: February 21, 2005, 04:11:40 Job time : 4977 secs	963 AAAGGCGAGCACCGTCAGGAACGCAGAGACCCGGCCTAC 1001	644 LysGlyGluHisArgGlnGluArgArgAspArgProTyr 656	903 CCTTTAATGGAACAGATGGGAGGAAGAAGAGGCGGACGTGGAGGACCTGGGAAAATGGAT 962	624 ProLeuMetGluGlnMetGlyGlyArgArgGlyGlyArgGlyGlyFroGlyLysMetAsp 643	843 GGAATGGACCGAGGTGGCTTTGGTGGAGGAAGAAGACGAGGTGGTCCTGGGGGGGCCTCCTGGA 902	604 GlyMetAspArgGlyGlyPheGlyGlyGlyArgArgGlyGlyProGlyGlyProProGly 623	

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Run
                                                                                                                                                                                                                                                                                                                                                                                                                 Database
                                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            on:
  22332199
23433214
25433214
25433214
25433214
25433214
25433214
                                                                                                                                                                                                                                                                                               Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                 1922
1922
1922
1922
1922
1900
1913
1900
188.5
188.5
188.5
188.8
878
878
878
878
 878
873.5
870
799.5
750
750
750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      geq
pag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein search,
                                                                                                                                                                                                                                                                                                                                   A Geneseq 16Dec04:*
1: geneseqp1990s:*
2: geneseqp1990s:*
3: geneseqp2001s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003s:*
7: geneseqp2003bs:*
8: geneseqp2004s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      length: 0 length: 2000000000
 Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BLOSUM62
Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     February 18, 2005, 15:13:01; Search time 165 Seconds (without alignments) 792.273 Million cell updat
                                                                                                                                                                                                                                                            guery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2105692 ведв,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-791-017A-2_COPY_319_656
1922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGRGGMGSAGERGGFNKPGG...........GGPGKMDKGEHRQERRDRPY 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Copyright
                                                                                                                                                                                                                                                                                                                                   geneseqp1980s:*
geneseqp1990s:*
geneseqp2000s:*
geneseqp2001s:*
geneseqp2002s:*
geneseqp2003as:*
geneseqp2003bs:*
geneseqp2004s:*
                                                                                                                                                                                                                                                 Length
 GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      386760381 residues
                                     AAM78355
ABG95081
ADI26117
ABM81732
ADS88302
AAM79330
AAM79340
ADI26113
AAM78356
                                                                                                                                          ADA55145
ADS16278
ABM82330
ABG04460
AAR4044555
ADR09402
AAW33813
ABB57126
ADP56334
ABM80197
        ADJ68310
ADI26207
ABO53050
                                                                                                                         ABG95084
ADR14649
                                                                                                                                                                                                                                                 ä
                                                                                                                                                                                                                                                                                                                                                                                                                                   summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₩
                                                                                                                                                                                                                                                                              SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2105692
                                                                                                                                                                                                  Ada55145 Human |
Ads16278 Human |
Abm82330 Tumour
Abg06460 Novel |
         Aam78356
Adj68310
Adi26207
Abo53050
                                              Aam79339
Aam79340
Adi26113
                                                                         Abg95081 |
Adi26117 |
Abm81732 |
Ads88302 |
                                                                                                                       Aaw33813
Abb57126
Adp56334
Abm80197
Abg95084
Adr14649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cell updates/sec
                                                                                                                                                                                 Aar44555 Human
Adr09402 Human
                                                                                                                                                                                                                                                 Description
                                                                                                                Aam78355
                                                                                                                                                               7126 Mouse
Human pro
Human Ewi
Tumour-as
Human Ews
Human Ews
Human Ews
Human Pro
Human Pro
Human Fro
```

45	44	43	42	41	40	39	38	37	36	ω 5	34	ω ω	32	31	30	29	28	27	26
303	303	303	303	303	303	303	303	407.5	419	475	475	475	475	475	475	475	475	616.5	623
15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	21.2	21.8	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	32.1	32.4
1466	1466	1078	1078	1078	1078	1078	1078	280	266	83	83	83	83	83	83	83	83	399	156
4	4	7	v	σ	v	w	N	œ	7	σ	4.	4	4.	4.	4.	4.	4.	4.	ω
AAE02533	AAE02534	ADF13078	ABB09628	ABB80736	AAE16478	AAY96125	AAR71704 `	ADI26115	ADL22735	ABG46973	ABG59596	AAM65255	AAM77960	ABB27099	AAM38178	ABB44223	AAM21854	ABB60010 .	AAB44066
Aae02533 1	Aae02534 1	Adf13078)	Abb09628	Abb80736 (Aae16478 1	Aay96125 (Aar71704 (Adi26115	Ad122735 I		Abg59596 1	-	Aam77960 1	Abb27099	Aam38178	Abb44223	Aam21854	Abb60010 I	Aab44066 1
Bovine al	Bovine al	Human col	Amino aci	Collagen	Human col	Collagen	Collagen	Human pro	Human dis	Human pep	Human liv	Human bra	Human bon	Protein #	Peptide #	Peptide #	Peptide #	Drosophil	Human can

ALIGNMENTS

RESULT 1 ADASS145 ID ADASS145 XX ADAS AC ADAS XX ADAS XX ADAS XX ADAS XX ADAS XX Cyto KW Gene KW Infl XX Homo XX EP12 PD 19-M XX 21-M Cytostatic; Anti-inflammatory; Osteopathic; Neuroprotective; Nootropic; Gene Therapy; human; secretory protein; membrane proteins; cancer; inflammatory disease; osteoporosis; neurological disease. 14-SEP-2001; 2001JP-00328381. 24-JAN-2002; 2002US-0350435P. (HELI-) (REAS-) 21-MAR-2002; 2002EP-00006586 EP1293569-A2 Homo sapiens Human 20-NOV-2003 ADA55145 standard; protein; 19-MAR-2003. ADA55145; protein, HELIX RES INST. RES ASSOC BIOTECHNOLOGY (first SEQ ID 2713 entry) 600 B

The present invention relates to novel human secretory or membr proteins (ADA54072-ADA55710) and their coding sequences (ADA524 ADA54071). The coding sequences are useful in the gene therapy diseases caused by abnormalities of the proteins, e.g. cancer, inflammatory diseases, osteoporosis or neurological disease.

secretory or membrane

(ADA52433-

of

Sequence 600 AA;

New polynucleotides encoding full-length polypeptides, e.g. secretory and/or membrane proteins, useful for developing medicines for diseases which the gene is involved, or as target molecules for gene therapy.

ij

Claim 14; SEQ ID NO 2713; 205pp; English.

Isogai T, Sugiyama T, Yamamoto J, Isono Y, Seki N, Yoshikawa T,

Hio Y, Ot Otsuka M,

Otsuki T, Wakamatsu A, Sato H, Hio Y, Otsuka K, Nagai K, Irie Otsuka M, Nagahari K, Masuho Y;

'n, Ishii S; Tamechika

H;

WPI; 2003-395539/38. N-PSDB; ADA53506.

Length

600;

```
ARESULT 2
ANDS1629
AN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 338; Conserv
This invention relates to a novel modulators that alter the interaction between the Ewing sarcoma protein (EWS) and its nuclear receptor, as well as the screening method thereof. Specifically, it refers to determining and identifying a hormonal effect brought about by test compounds that modulate either the binding of EWS to the nuclear receptor or the ligand-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-MAR-2003; 2003DE-01009280
25-APR-2003; 2003US-0465692P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  human; Ewing hypogonadism;
                                                                                                                                                             Disclosure;
                                                                                                                                                                                                                                   Determining the hormonal effects of substances, used to identify pharmaceuticals, e.g. for treatment of androgen receptor dysfunction modulating interaction between nuclear receptors and Ewing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16-FEB-2004; 2004EP-00003422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-SEP-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EP1455190-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADS16278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (SCHD ) SCHERING
                                                                                                                                                                                                                                                                                                                                                                        2004-627861/61.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ewing sarcoma protein SeqID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \vdash
                                                                                                                                                                                                                                                                                                                                             ADS16277.
                                                                                                                                                                                                                                                                                                                                                                                                                            Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAI YVQGLNDSVTLDDLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPPPP
                                                                                                                                                                SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                            Wolf S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sarcoma; EWS; prostatic cancer; alopecia;
; androgen-resistance syndrome; testicular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
                                                                                                                                                                Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
G
                                                                                                                                                       NO 2; 30pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1922; DB 6;
Pred. No. 5.4e-148;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        acne;
feminisation
                                                                                                                                                                                                                                         dysfunction,
l Ewing sarcoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
```

02-OCT-2002; 2002US-0414971P

(GETH) GENENTECH INC

29-SEP-2003;

2003WO-US028547

WO2004030615-A2

```
RESULT 3
ABM82330
ID ABM8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ព័ត្ពព័ត្តពិត្តព័ត្តព័ត្ត
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ş
Query Match
Best Local S
Matches 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       induced activity of this receptor. The present invention describes the nuclear receptors as including oestrogen, progesterone, thyroid hormone, vitamin D, and retinoic acid receptors, most preferably they are androgen receptors. Accordingly, these modulators may be used in the development of pharmaceutical compositions that can diagnose and be used to treat diseases associated with receptor dysfunction such as prostatic cancer, alopecia, acme, hypogomadism and androgen-resistance syndrome e.g. testicular feminisation. This method provides reliable, sensitive, simple, inexpensive and rapid assessment of the hormonal effects of these test compounds. This polypeptide sequence is the human Ewing sarcoma protein of the invention.
                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                  Tumour-associated antigenic target; TAT; human; overexpression; c tumour; diagnosis; cell proliferative disorder; breast cancer; colorectal cancer; lung cancer; ovarian cancer; liver cancer; central nervous system cancer; bladder cancer; pancreatic cancer; cervical cancer; melanoma; leukaemia; hybridisation probe; cervical cancer; melanoma; leukaemia; hybridisation probe;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                       chromosome identification; chromosome mapping; gene
                                                                                                                                                                                                                                                                                                                                                                                                   ABM82330;
                                                                                                                                                                                                                                                                                                                                                                                                                                 ABM82330 standard;
                                                                                                                                                                                                                                                                                                                                    Tumour-associated antigenic target (TAT) polypeptide
                                                                                                                                                                                                                                                                                                                                                                   18-NOV-2004
                                                                                                                                                                                                      therapy;
                                                                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 338;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSATYVQGLNDSVTLDDLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             656 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPPPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                        cytostatic.
                                                                                                                                                                                                                                                                                                                                                                   (first
                                                                                                                                                                                                                                                                                                                                                                                                                                 protein;
                                                                                                                                                                                                                                                                                                                                                                   entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                  656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1922; DB 8
Pred. No. 6e-148;
); Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                  ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                       probe;
mapping;
                                                                                                                                                                                                                                                                                                                                      PRO58232,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>,</u>
                                                                                                                                                                                                                                                                                                                                      SEQ:5990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         498
```

#X##X####X#X6999999999999999999999

```
RESULT 4
ABG06460
ID ABG0
XX
AC ABG0
XX
DT 13-I
XX
DE Nove
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      polypeptides; expression vectors and host cells comprising a TAT nucleic caid; an antibody specific for a TAT polypeptide; a peptide or organic molecule which binds to a TAT polypeptide; fusion proteins comprising a TAT polypeptide; and methods and compositions for the treatment or diagnosis of cancer in mammals. TAT polypeptides, nucleic acids, antibodies, antagonists, binding molecules and compositions are useful for diagnosing or treating a cell proliferative disorder associated with increased TAT expression, particularly cancers such as breast cancer, colorectal cancer, lung cancer, ovarian cancer, liver cancer, bladder cancer, pancreatic cancer, cervical cancer, cancers of the central nervous system, melanoma and leukaemia. TAT nucleic acids may further be used as hybridisation probes, in chromosome and gene mapping, in chromosome identification and in gene therapy. The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to human tumour-associated antigenic target (TAT) polypeptides, and their related nucleic acids. The TAT polypeptides are overexpressed in cancer tissues compared to normal tissues, and may thus serve as effective targets for the diagnosis and treatment of cancer in mammals. The invention also relates to nucleic acid and polypeptide sequences at least 80% identical to the TAT nucleic acids and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New tumor-associated antigenic target polypeptides and nucleic useful in preparing a medicament for treating or detecting a proliferative disorder, e.g. breast, lung, colorectal, ovarian
Novel human diagnostic protein #6451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ę
                                                      13-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 12; SEQ ID NO 5990; 7273pp; English
                                                                                                                                                     ABG06460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ä
                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                            559
                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2004-347921/32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  al Similarity
338; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zhang
                                                                                                                                                                                                                                                                                                    GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY 338
                                                                                                                                                                                                                                                                                                                                                                                                        PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPFTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                                     etandard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  656 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cancer or tumor.
                                                                                                                                                                                                                                                                            GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                               PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
ilarity 100.0%;
Conservative 0
                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zhou
                                                                                                                                                   protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ۲
                                                                                                                                                     665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1922; DB 8
Pred. No. 6e-148;
; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              · 8
                                                                                                                                                                                                                                                                            656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 656;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         é
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     acids,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                            618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            558
```

밁

밁 Ś

밁 ঠ 밁 S 밁 १

ঠ

밁 Ś 밁 S 밁 Ś

0

밁 8

808

PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP

567

```
The invention relates to isolated polynucleotide (I) and polypeptide (II)
C sequences. (I) is useful as hybridisation probes, polymerase chain
C reaction (PCR) primers, oligomers, and for chromosome and gene mapping,
CC and in recombinant production of (II). The polynucleotides are also used
C in diagnostice as expressed sequence tags for identifying expressed
CC genes. (I) is useful in gene therapy techniques to restore normal
CC useful for generating antibodies against it, detecting or quantitating a
CC useful for generating antibodies against it, detecting or quantitating a
CC polypeptide in tissue, as molecular weight markers and as a food
CC supplement. (II) and its binding partners are useful in medical imaging
CC of sites expressing (II). (I) and (II) are useful for treating disorders
CC involving aberrant protein expression or biological activity. The
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC reafora other tropes of data and products despendent on DNA and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 338;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and to produce other types of data and products dependent on DNA and amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic amino acid sequences of the invention. Note: The sequence data for this patent did not appear in the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New isolated polynucleotide and encoded polypeptides, useful diagnostics, forensics, gene mapping, identification of mutat responsible for genetic disorders or other traits and to asse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31-MAR-2000;
23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; chromosome mapping; gene mapping; gene therapy; forensic; food supplement; medical imaging; diagnostic; genetic disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Drmanac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-MAR-2001; 2001WO-US008631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001-639362/73
)B; AAS70647.
                    181
                                                                                                                                                                                                               388
                                                                                                                                                                                                                                                                                                                                            328
                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                        -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                            KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                               DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                    DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                            GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                                                                                                                                                                                                                                                                                        GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAI YVQGLNDSVTLDDLA
                                                                                KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 36819; 103pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-00540217
2000US-00649167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 1922; DB 4; 100.0%; Pred. No. 6.1e-148; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mutations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       665;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        assess
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                       240
                                                                                                                                                180
                                                                                                                                                                                                               447
                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                            387
                                                                                       507
```

```
RESULT 5
AAR44555
ID AAR4
XX
AC AAR4
AC AAR4
XX
AC AAR4
AC AC 
S
                                            문
                                                                                    Ś
                                                                                                                                       밁
                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                   Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-MAR-2003
26-MAY-1994
                                                                                                                                                                                                                                                                                                                     Sequence 656 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Fig 6; 123pp; French
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New nucleic acid of EWS gene and its hybrid(s) - contg. gene sequence involved in chromosomal trans-location, also derived mRNA, probes, fusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-PSDB; AAQ50643.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1993-386580/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Aurias
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-MAY-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-NOV-1993.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W09323549-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    primitive peripheral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           malignant melanoma; human chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              chromosomal translocation; chimeric;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human EWS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAR44555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Thomas
                                                                                                                                                                                                                                                                                                                                                                                                              library
                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                             probes 22RR3 and 22RR12 were used to screen a human foetal brain cDNA rary (Stratagene cat.# 936206). The clone BFLAC5 was identified and uenced. It represents the entire coding region and 3'-UTR of the Ews e. (Updated on 25-MAR-2003 to correct PN field.)
                                              379
                                                                                                                                       319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
    121
                                                                                         61
                                                                                                                                                                                                                                 337;
                                                                                                                                                                                    r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ģ,≯
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CNRS
                                                                                                                                                                                                                                                   Similarity
                                                                        DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                               GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       etc., for diagnosis and treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGFRGMDRGGFGGGRRGGF
    KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                     GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                              DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein deduced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zucman J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Delattre O,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CENT NAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92FR-00006123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93WO-FR000494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers 569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           note= "corresponds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein;
                                                                                                                                                                                                                                                   99.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    neuroectodermal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Desmaze
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             from foetal brain cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SCI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     656
                                                                                                                                                                                                                            Score 1913; D
Pred. No. 3.2e
0; Mismatches
                                                                                                                                                                                                                              <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ú
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ដូ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Melot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tumour; human chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              chimaeric; Ewing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGT codon"
                                                                                                                                                                                                                                                 DB 2;
3.2e-147;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       of Ewing sarcoma and melanoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Peter M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                338
                                                                                                                                                                                                                                                                      Length 656;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             clone BF1AC5
                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sarcoma; Ews
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Plougastel
                                                                                                                                                                                                                            <u>,</u>
                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene;
                                                                                                                                       378
    180
                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                            438
                                                                                                                                                                                    60
                                                                                                                                                                                                                            0
```

```
ARBSULT 6
ADROV
XX
ADROV
AN
ADROV
XX
ADROV
AN
ADROV
XX
ADROV
AN
ADROV
AN
ADROV
XX
ADROV
AN
AN
ADROV
AN
ADROV
AN
AN
ADROV
AN
AN
ADROV
AN
AN
ADROV
ADROV
AN
AN
ADROV
AN
ADROV
AN
AN
ADROV
ADROV
AN
ADROV
ADROV
AN
ADROV
ADROV
AN
ADROV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
  This invention relates to novel, isolated full length human cDNA CC molecules and the encoded proteins thereof. Specifically, it refers to CC cDNA clones obtained by an oligo-capping method, where none of these CC clones are identical to any known human mRNAs. The present invention CC describes an immunoassay to identify agonists and antagonists, as well as CC antibodies, antisense molecules and siRNAs that can all be used to bind CC encles are useful for diagnostic markers or therapeutic targets for CC molecules are useful for diagnostic markers or therapeutic targets for CC encles are useful for diagnostic markers or therapeutic targets for CC disease, Parkinson's disease, dementia, short memory and various cancers, CC as well as for maintaining equilibrium of sense or motor function, and CC for treating emotional reaction, fear response and panic. Accordingly, CC they exhibit osteopathic, neuroprotective, nootropic, antiparkinsonian, CC cytostatic and tranquiliser activities. This polypeptide is a protein CC encoded by a full length human cDNA sequence of the invention. NOTE: This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Isogai T,
Wakamatsu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      osteoporosis; neurological disease; Alzheimer's disease; Parkinson's disease; dementia; short memory; cancer; sense or motor function; emotional reaction; fear response; osteopathic; neuroprotective; nootropic; antiparkinsonian; c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New 1995 cDNA, useful Alzheimer's diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2004-583265/57.
N-PSDB; ADR07446.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-FEB-2003; 2003JP-00102207
09-MAY-2003; 2003JP-00131452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; SEQ ID NO 2908; 2686pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EP1447413-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tranquiliser.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADR09402;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADR09402 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-FEB-2004; 2004EP-00003145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    human; oligo-capping method;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (REAS-) RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PGGDRGRGGPGGMRGGRGGIMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PGGDRGRGGPVGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ۶
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Yamamoto
A, Ishii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ASSOC BIOTECHNOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ωü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           for treating neurological disease Seg 2908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for treating osteoporosis, neurological dis
Parkinson's diseases, dementia and various
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nagai K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nishikawa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diagnostic marker;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Isono
e R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ۲
polypeptide is a protein of the inverti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sugiyama
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Otsuki T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             diseases,
ous cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          498
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ន្តន្តន្តន
                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 337;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sequence is not given in the sequence listing of the specification but can be obtained on CD-ROM from the European Patent Office, Vienna Sub-office.
                                                                      03-JUL-1996;
13-DEC-1996;
                                                                                                                                                                                                                                                                    Tat stimulatory factor; Tat-SF1; transcriptional activity factor; infection; gene therapy; EWS.
                                                                                                                                                                                                                                                                                                   Human EWS protein
                                                                                                                                                                                                                                                                                                                         06-JUL-1998
          WPI; 1998-087086/08
                              Sharp
                                                                                                     03-JUL-1997;
                                                                                                                        08-JAN-1998
                                                                                                                                                                                     Region
                                                                                                                                                                                                                   Region
                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                             AAW33813;
                                                                                                                                                                                                                                                                                                                                                                  AAW33813 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                             WO9800695-A2
                                                  (MASI ) MASSACHUSETTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                          507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            387
                                                                                                                                                                                                                                                                                                                                                                                                                     567
                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             267
                              PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ب
                                                                                                                                                                                                                                                                                                                                                                                                                                GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PGGDRGRGGPGGMRGGRGGLMDRGGPGGMPRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                                                                   GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                          PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRGPRGSRGNPSGGGNVQHRAGDLQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPPPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              604 AA
                               Zhou
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                         (first
                                                                      96US-0021218P.
96US-0033152P.
                                                                                                    97WO-US011713
                               Ö
                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                       note= "imperfect repeat
                                                                                                                                                                                                                                                                                                                                                                protein; 656
                                                                                                                                                                                                                                                                                                                         entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99.3%;
                                                   INST TECHNOLOGY
                                                                                                                                                                         "imperfect repeat peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1909; DB 8;
Pred. No. 6.2e-147;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                 ₿
                                                                                                                                                                                                       peptide
                                                                                                                                                                                                                                                                                                                                                                                                                  604
                                                                                                                                                                                                       showing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                        showing homology to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          604;
                                                                                                                                                                                                       homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                          566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
```

```
맑
                                                                                                S
                                                                                                                                     뮍
                                                                                                                                                                      S
                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              끊
                                S
                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 336;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EWS is a member of a novel family of putative transcription factors that have RNA recognition motifs and which are frequently associated with many types of sarcomas. It shows homology to a novel human transcriptional activity factor, Tat-stimulatory factor (Tat-SF1, see AAW33811), that is involved in the regulation of transcriptional elongation of HIV-1 by Tat, is essential for Tat trans-activation and is a substrate of an associated cellular kinase. Tat-SF can be used to screen for binding agents useful in the treatment of HIV infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nucleic acid encoding Tat stimulating factor protein and related transformed cells - proteins and binding agents, used to treat himmunodeficiency virus infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 6; Page 47-51; 68pp; English.
                                                                                                                                                                                                                                                                                  379
 619
                                  301
                                                                     559
                                                                                                                                         499
                                                                                                    241
                                                                                                                                                                         181
                                                                                                                                                                                                            439
                                                                                                                                                                                                                                121 KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                                                                                     319
                                                                                                                                                                                                                                                                                                  61 DFFKQCGVVKMKKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                           1 GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                           GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                           PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                         PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAQRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                  PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                                                                                                                              DFFKQCGVVKMNKRTGQFMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDGQGS
                                                                                                                                                                                                                                                                                                                                                   GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
 GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                   PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                            KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                                                         98.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1900; DB 2;
Pred. No. 3.7e-146;
0; Mismatches 2;
656
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human
                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                    300
                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                 120
                                                                       618
                                                                                                                                         558
                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                438
                                                                                                                                                                                                                                                                                                                                                   378
                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                            498
                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

```
RESULT 8
ABB57126
ID ABB5
XX ABB5
XX ABB5
XX ABB5
XX MOUE
XX MOUE
XX MOUE
XX WOSC
XX WOSC
XX WOSC
XX IS-N
XX 18-N
XX ISN:
PA (UY)
XX X
                                                                                                                                                    Mouse; ischaemia; comp
vasospastic ischaemia;
                                                                                                                                                                                                                                              ABB57126 standard;
          Ishikawa K,
                                                                                           22-NOV-2001
                                                                                                              WO200188188-A2
                                                                                                                                  Mus musculus
                                                                                                                                                                                 Mouse ischaemic condition related protein sequence SEQ ID NO:289.
                                                                                                                                                                                                        07-MAR-2002
                                                                                                                                                                                                                            ABB57126;
                                                  18-MAY-2000; 2000JP-00145977
                              (-INYU)
                                                                     18-MAY-2001; 2001WO-JP004192
                               VIND
          Asai S,
                              NIHON SCHOOL JURIDICAL PERSON
                                                                                                                                                                                                       (first entry)
                                                                                                                                                               compressive ischaemia;
                                                                                                                                                                                                                                              protein;
          Takahashi Y,
                                                                                                                                                      ischaemic
                                                                                                                                                                                                                                               655
                                                                                                                                                                                                                                              A
                                                                                                                                                      condition;
          Nagata T,
                                                                                                                                                               occlusive ischaemia;
                                                                                                                                                      ischaemic
            Ishii
           K
                                                                                                                                                      disease
```

```
Claim 2;
```

N-PSDB; 2002-034733/04. DB; ABI99383.

Examining the ischemic condition (e.g. occlusive ischemia) by measuring expression levels of particular genes defined in the specification or by determining the expression profile of a gene group comprising these

Page 799-802; 2690pp; English

The present invention describes a method for examining ischaemic conditions, comprising measuring the expression levels of particular genes (I) in a test sample or determining the expression profile of a gene group in the sample comprising genes selected from (I). The method is useful for examining the ischaemic condition (e.g. compressive ischaemia, occlusive ischaemia or vasospastic ischaemia) by measuring expression levels of particular genes (ABI99202 to ABI99912, encoding the protein sequences in ABB57020 to ABI57374) or by determining the expression profile of a gene group comprising these genes. The expression indicator when screening for ischaemic condition. Improving drugs or therapeutics for ischaemic diseases. ABI99913 and ABI99914 represent PCR primers for a mouse ischaemic condition related sequence, which are used in the exemplification of the present invention

Sequence 655 AA;

Query Match Best Local (

Similarity

98.3%;

.2e-145; DB 5;

Length

655;

S 밁 δ 밁 S 밁 Ś 밁 5 밁 S 문 301 558 241 498 181 438 121 378 319 61 \vdash PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY 338 PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS GGRGGLG-AGERGGFNKPGGPMDEGPDLDLGLPIDPDEDSDNSAIYVQGLNDNVTLDDLA PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFFP KLKVSLARKKPPMNSMRGGMPPREGRGMPPPLRGGPGGPGGPMGRMGGRGGDRGGFP PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP Conservative Score 1888.5; Pred. No. 3.2e 4; Mismatches 655 Indels 1; Gaps 300 497 180 377 60 617 557 240 437 120

ADP56334 standard; protein; 583

18-NOV-2004 (first entry)

Human PRO protein sequence SEQ ID NO:2310.

RESULT 9
ADP56335
ID ADP5
XX ADP5
XX ADP5
XX ADP5
XX Huma
XX H immune response stimulation; antiallergic; antianaemic; antiarthri antiasthmatic; antidiabetic; antiinflammatory; antipsoriatic; antitheumatic; antithyroid; CNS; dermatological; gastrointestinal; haemostatic; hepatotropic; imm nephrotropic; neuroprotective; immune related disease; inflammatory immune response; immunostimulant;
ive; osteopathic; immunosuppressive; muscular;

Aggarwal Wood WI, N-PSDB; ADP56333. stimulating an immune response. erythematosus, 29-OCT-2002; 2002US-0422472P 28-OCT-2003; 2003WO-US034381 WO2004039956-A2 Homo sapiens 2004-376182/35 ω, s GENENTECH Clark H, Gurney ¥, Schoenfeld

çı

Williams

Z

New PRO polynucleotides and polypeptides, useful in useful in diagnosing and treating an immune related disease, e.g. systemic lupus rheumatoid arthritis, diabetes mellitus or asthma and in

Claim 1; SEQ ID NO 2310; 3009pp; English.

CC described: (1) a vector comprising (1); (2) a host cell comprising the CC vector of (1); (3) a process for producing a PRO polypeptides; (4) an CC isolated PRO polypeptide; (5) a chimeric molecule comprising the CC polypeptide of (4) fused to a heterologous amino acid sequence; (6) an CC composition of matter comprising polypeptide of (4), an agonist or CC antagonist of the polypeptide or an antibody that binds to the comprising a container, a label on the container and a composition of matter comprising an induce comprising a container, a label on the container and a composition of CC matter of (7); (9) a method of treating an immune related disease in a mammal; (10) a method of the presence of a PRO polypeptide in a sample suspected of having the polypeptide; (11) a method of didentifying a compound that inhibits or CC in a sample suspected of identifying a compound that inhibits or CC mimics the activity of or expression of a gene encoding a PRO polypeptide (13) a method of stimulating the immune response in a mammal. The CC antiasthmatic, antialargic, antianaemic, antiarthritic, antithreumatic, antialargic, antianaemic, antiarthritic, contains the activities, and can be used in gene therapy. The nucleic and CC useful in diagnosing and treating an immune related disease and in the necoted polypeptides, compositions, kits and methods are custoff in manuae response. The present sequence represents a human contains a numan response. The present sequence represents a human contains a numan response. The present sequence represents a human contains a numan response. The present sequence represents a human contains a numan response. The present sequence represents a human response. PRO protein The present invention from the present invention. describes an isolated PRO nucleuc actions the comprising the compr PRO nucleic acid (I). Also

Sequence 583 Ä

Query Match Best Local (

Similarity

94.2%;

Score 1810; DB 8; Pred. No. 7e-139;

Length 583;

```
S
                          밁
                                                    á
                                                                                   片
                                                                                                                                           片
                                                                                                                                                                    S
                                                                                                                                                                                                     Matches
                                                       141
                                                                                                                                            266
                                                                                                                                                                                                   318;
                                                                                                                                                                       21
                                                                                                    HIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGL
AGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGL
                                                     PPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHR
                                                                                   HIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGL
                                                                                                                                           PMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMI
                                                                                                                                                           PMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMI
                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                  0,
                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                   0
                                                                                                                                                                                                   Indels
                                                                                                                                                                                                   0
                                                                                                                                                                                                   Gaps
                                                       200
                                                                                     385
                                                                                                                140
                                                                                                                                            325
 260
                            445
                                                                                                                                                                                                   0
```

밁 S 밁 S 밁

```
RESULT 10
ABM80197
ID ABM80197
XX ABM80
XX Tumov
XX Tumov
XX Cervi
XX Gerv
XX Gerv
XX Gerv
XX 29-8
XX 29-8
XX 15-A

                 The invention relates to human tumour-associated antigenic target (TAT)

polypeptides, and their related nucleic acids. The TAT polypeptides are

overexpressed in cancer tissues compared to normal tissues, and may thus

serve as effective targets for the diagnosis and treatment of cancer in

mammals. The invention also relates to nucleic acid and polypeptide

sequences at least 80% identical to the TAT nucleic acids and

conjugations are expression vectors and host cells comprising a TAT nucleic

acid; an antibody specific for a TAT polypeptide; a peptide or organic

molecule which binds to a TAT polypeptide; fuelon proteins comprising a

TAT polypeptide; and methods and compositions for the treatment or

clasmosis of cancer in mammals. TAT polypeptides, nucleic acids,

antibodies, antagonists, binding molecules and compositions are useful

for diagnosis of cancer in mammals. TAT polypeptides, nucleic acids,

increased TAT expression, particularly cancers such as breast cancer,

cohorectal cancer, lung cancer, ovarian cancer, liver cancer, bladder

cancer, pancreatic cancer, ovarian cancer, liver cancer, bladder

cancer, pancreatic cancer, cervical cancer, acacers of the central

nervous system, melanoma and leukaemia. TAT nucleic acids may further be

used as hybridisation probes, in chromosome and gene mapping, in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tumour-associated antigenic target; TAT; human; overexpression; citumour; diagnosis; cell proliferative disorder; breast cancer; colorectal cancer; lung cancer; ovarian cancer; liver cancer; central nervous system cancer; bladder cancer; pancreatic cancer; cervical cancer; melanoma; leukaemia; hybridisation probe; chromosome identification; chromosome mapping; gene mapping;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New tumor-associated antigenic target polypeptides and nucluseful in preparing a medicament for treating or detecting proliferative disorder, e.g. breast, lung, colorectal, ovar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-OCT-2002; 2002US-0414971P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-SEP-2003; 2003WO-US028547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO2004030615-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tumour-associated antigenic target (TAT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-NOV-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABM80197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABM80197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2004-347921/32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12; SEQ ID NO 491; 7273pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACN37537.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zhang Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cancer or tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGGRRGGPGGPPGPLMEQMGGRRGGRGG 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard, protein; 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFRGGPGGPPGPLMEQMGGRRGGRGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Zhou
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Υ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽
gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     polypeptide PRO80700,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nucleic acids,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ:491.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    505
```

```
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SXS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 261
                                                                                                                                                                                                                                                                            Chromosome aberration; oncogenic fusion protein; cancer; proliferative disease; cellular protein isoform; heat shock protein 9: PSP-90; rheumatoid arthritis; cancer; haematopoietic disorder; T cell lymphoma; B cell lymphoma; chronic myeloid leukaemia; CML; acute myeloid leukaemia; AML; chronic myeloomoocytic leukaemia; CMML; acute lymphoblastic leukaemia; AL; APL; NHL; solid tumour; papillary thyroid carcinoma; Ewing's sarcoma; melanoma; liposarcoma; rhabdomyosarcoma; synovial sarcoma; viral infection.
                                                                                                                                                     01-MAR-2001; 2001US-0272751P
                                                                                                                                                                             01-MAR-2002; 2002WO-US006518
                                                                                                                                                                                                       12-SEP-2002.
                                                                                                                                                                                                                                WO200269900-A2
                                                                                                                                                                                                                                                                                                                                                                                                                          04-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABG95084;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABG95084 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          represents a TAT polypeptide of the invention
                                                                            2002-698710/75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               105
                                                                                                    ភ្ជ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   261;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DFFKQCGVVKMNKRTEQPMIHTYLDKETRKPKGDATVSCEDSPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERR 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCGGMGSAGEQVGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDNVTLDDLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -----LVEE---DKVALGGPRTFDVTNGRKKRR 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PGGDHGRGGPGGMWGGRGGLMDHGGPGGMFRGGCGRDRSGFCGGWAWTEVA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRGPQGSRGNTSGGGNVQHQAGDRQCPNPGCGNQNFAWRTESNKCKAPKPEGFLPPPFPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KLKVSLARKRPPVNSMQGGMPPHEGRGMPPPLCGGPGGPGSPGGPMGHMGGRGGDRGGLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                        (first
                                                                                                    Ę
                                                                                                                                                                                                                                                                                                                                                                                                                        entry)
                                                                                                                                                                                                                                                                                                                                                                                               (12; 16) (q13; p11) protein #5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            73.6%;
78.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1415; D
Pred. No. 6.3e
14; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           525 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6.3e-107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 361;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18;
                                                                                                                                                                                                                                                                                                                                                          90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
```

Treating genetically-defined disease associated with chromosomal aberrations yielding oncogenic fusion proteins, e.g. cell prolif diseases, involves administering an inhibitor of heat shock prot

cell proliferative shock protein 90.

```
Disclosure,
Page 228-229;
389pp; English.
```

administering HSPO-inhibitor. The method is useful for treating genetically-defined disease with chromosomal aberration yielding oncogenic fusion protein, treating cancerous cells containing fusion protein in heterogeneous cell population, treating proliferative disease (e.g. rheumatoid arthritis or cancer) associated with mutant protein or cellular protein isoform dependent on heat shock protein (HSP)-90 (e.g. p53), or selectively treating cells expressing mutant protein or cellular protein isoform in a patient heterozygous for (II). The method is useful for treating a disease e.g. haematopoietic disorder such as T or B cell lymphoma, chronic myeloid leukaemia (CML), APL, AML, MHL and CMML, or a disease characterised by a solid tumour such as papillary thyroid carcinoma, Ewing's sarcoma, melanoma, liposarcoma, rhabdomyosarcoma and synovial sarcoma. The method is also useful for treating viral infections. This represents a protein encoded by the DNA sequence of a The invention describes a method of treating genetically-defined disease associated with chromosomal abstrations yielding oncogenic fusion proteins (I), treating cancerous cells containing (I) in a heterogeneous cell population, treating proliferative diseases associated with mutant protein or cellular protein isoforms (II) dependent on heat shock protein (HSD)-90, or selectively treating cells expressing (II) involving administering HSP90-inhibitor. The method is useful for treating aberration

Ā

```
S
                                                                             გ
밁
                                                     밁
                                                                                                         문
                                                                                                                                 ঠ
                                                                                                                                                            밁
                                                                                                                                                                                        S
                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 182
                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                          248
905
                         296
                                                     454
                                                                               241
                                                                                                          411
                                                                                                                                    181
                                                                                                                                                               362
                                                                                                                                                                                           121
                                                                                                                                                                                                                      302
                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                     PIKVSFATRRADFN--RGGGNGRGGRG----RGGPMGRGGYGGG----GSGGGGRGGFP
                                                                                                                                                                                        KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                     DYFKQIGIIKTNKKTGQFMINLYTDRETGKLKGEATVSFDDFPSAKAAIDWFDGKEFSGN
                                                                                                                                                                                                                                     DFFKQCGVVKMKKTGQPMIHIYLDKETGKFKGDATVSYEDFFTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                         GGRGGMGGS-DRGGFNKFGGPRDQGSRHD----SEQDNSDNNTIFVQGLGENVTIESVA
                                                                                                                                                                                                                                                                                                  GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                         RRGGPGGPPGPLMEQMGGRRGGRGGPGKMD-KGEHRQERRDRPY 338
                                                                                PGGDRGRGGPGGMR-GGRGGLMDRGGPGGMFRG---GRGGDRGGFRGGR-GMDRGGFGGG 295
                                                                                                          SGG-----
                                                                                                                                                                                                                                                                                                                                 Conservative
                                                     -GGPGGSHMGGNYGDDRRGGRGGYDRGGYRGRGGDRGGFRGGRGGGDRGGF---
                                                                                                                                                                                                                                                                                                                                              45.7%;
52.9%;
                                                                                                          -GGGGGQQRAGDWKCPNPTCENMNFSWRNECNQCKAPKPDG------
                                                                                                                                                                                                                                                                                                                                 36;
                                                                                                                                                                                                                                                                                                                              Score 878; DB 5; I
Pred. No. 5.6e-63;
6; Mismatches 54;
-GPGKMDSRGEHRQDRRERPY
                                                                                                                                                                                                                                                                                                                                                           Length 525;
                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                 72;
                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                     60
                                                                                                          453
```

RESULT 12 ADR14649 ADR14649 standard; protein; 525

21-OCT-2004 (first entry)

NF-kappaB pathway; antiinflammatory; cytostatic; hepatotropic; virucide; Human NF-kappaB pathway-associated protein SeqID650.

antiarthritic; antirheumatic; gastrointestinal-Gen; antiasthmatic; antiarteriosclerotic; immunomodulator; cerebroprotective; vasotropic; immunosuppressive; vulnerary; gene therapy; immune disorder; inflammatory disorder; NF-kappaB regulation; cancer; aberrant apoptos hepatic disorder; Hodgkin's lymphoma; haematopoietic tumour; hyper-IgM syndrome; hypohidrotic ectodermal dysplasia; hyper-IgM syndrome; X-linked anhidrotic dysplasia; apoptosis

> aberrant acute phase response; hypercongenital condition; birth defect; necrocic lesion; wound; organ transplant rejection; aberrant signal transduction; prollferating disorder; cancer; HIV propagation; human. viral infection; HIV-1; HTLV-1; hepatitis B; hepatitis C; EBV; influenza; viral replication; host cell survival; evasion of immune response; rheumatoid arthritis; inflammatory bowel disease; colitis; asthma; atherosclerosis; cachexia; euthyroid sick syndrome; stroke; EAE; autoimmune disorder; hyper immune activity; 14-JAN-2003; 2003US-0440068P 12-MAY-2003; 2003US-0469757P WPI; 2004-562168/54. Nadler SG, 13-JAN-2004; 2004WO-US000798 05-AUG-2004 WO2004065577-A2 New isolated polynucleotides and polypeptides associated with NF-kappaB (BRIM) BRISTOL-MYERS SQUIBB CO Neubauer র ন Feder JN, Carman

pathway, useful for diagnosing, treating, o
diseases associated with NF-kappaB pathway. or preventing disorders or

Claim 日 NO 650; 237pp; English

This invention relates to the novel association of protein sequences (and CC the genes which encode them) to the NF-kappaB pathway. The invention may CC be useful for the production of compounds with an antiinflammatory, CC cytostatic, hepatotropic, virucide, antiarthritic, antiinflammatory, CC gastrointestinal-Gen, antiasthmatic, antiarthritic, immunosuppressive or vulnerary activity or for gene therapy. The proteins and nucleotides are useful for diagnosing, preventing, treating, or ameliorating conditions CC useful for diagnosing, preventing, treating, or ameliorating conditions CC related to aberrant NF-kappaB regulation, cancer, aberrant apoptosis, hepatic disorder, an inflammatory disorder an inflammatory disorder of cetodermal dysplasia, immunodeficiency, viral infections, HIV-1, HTLV-1, CC hepatitis B, hepatitis C, EBV, influenza, viral replication, host cell cetodermal dysplasia, immunodeficiency, viral infections, HIV-1, HTLV-1, CC bowel disease, colitis, asthma, atherosclerosis, cachexia, euthyroid sick syndrome, stroke, EAE, autoimmune disorders, disorders related to aberrant acute phase responses, corpan transplant rejection, conditions related to organ transplant conjugation, part of the present sequence is that of a human protein which other viruses. The present sequence is that of a human protein which cis subject to the novel association with the NF-kappaB pathway of the ccinary was obtained by the indexer from Genbank.

Sequence 525 Ä

S Query Match Best Local & Similarity GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA 60 Conservative 45.7%; Score 878; DB 8; 52.9%; Pred. No. 5.6e-63; tive 36; Mismatches 54 36; Length 525; 72;

밁 248 GGRGGMGGS-DRGGFNKFGGPRDQGSRHD----SEQDNSDNNTIFVQGLGENVTIESVA 301

61 DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS

Ś

```
RESULT 13
AAM78355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
         The invention relates to polynucleotides (AAK51456-AAK53435) and the encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to cytokine, cell proliferation or cell differentiation. The production of other cytokines in other cell populations. The polynucleotides and polypeptides are useful in gene therapy, vaccines or peptide therapy. The polypeptides have various cytokine-like activities,
                                                                                                            Nucleic acids encoding in diagnosis and gene t
                                                                                                                                                                                                                                                                                                                  03-FEB-2000;
27-APR-2000;
                                                                                                                                                                                                                                                                                                                                                                         09-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                               WO200157190-A2
                                                                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human
                                                                                         Claim
                                                                                                                                                                                                                           (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                 30-NOV-2000;
                                                                                                                                                                                                                                                                      01-SEP-2000;
15-SEP-2000;
                                                                                                                                                                                                                                                                                            20-JUN-2000;
19-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                   05-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; cytokine; cell proliferation; cell differentiation; gene the vaccine; peptide therapy; stem cell growth factor; haematopoiesis; tissue growth factor; immunomodulatory; cancer; leukaemia; nervous system disorder; arthritis; inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAM78355
                                                                                                                                                                                Ę
                                                                                                                                                                             YT, Liu C, Drmanac I
, Zhao QA, Wang D, I
AJ, Yang Y, Wejhrman
  Btem
                                                                                                                                                         2001-476283/51.
                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                        20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein
                                                                                                                                               AAK51488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RRGGPGGPPGPLMEQMGGRRGGRGGPGKMD-KGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SGG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PIKVSFATRRADEN--RGGGNGRGGRG----RGGPMGRGGYGGG----GSGGGGRGGFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ង
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PGGDRGRGGPGGMR-GGRGGLMDRGGPGGMFRG---GRGGDRGGFRGGR-GMDRGGFGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPPPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGPP
                                                                                        Page 3253-3254; 6221pp; English
                                                                                                                                                                                                                                             7 2000US-00496914.

2000US-00560875.

2000US-00598075.

2000US-00620325.

2000US-00620325.

2000US-00633561.

2000US-00693325.

2000US-00693325.
                                                                                                                                                                                                                                                                                                                                                   2001WO-US004098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ
 growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGPGGSHMGGNYGDDRRGGRGGYDRGGYRGRGGDRGGFRGGRGGDRGGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ID NO 1017.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -GGGGGQQRAGDWKCPNPTCENMNFSWRNECNQCKAPKPDG-----
factor activity, haematopoiesis
                                                                                                             polypeptides with therapy.
                                                                                                                                                                              RT,
Wang
n T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   526
                                                                                                                                                                             Asundi V, Zho
J J, Zhang J,
Goodrich R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -GPGKMDSRGEHRQDRRERPY
                                                                                                                         cytokine-like
                                                                                                                                                                                         Zhou P,
J, Ren
                                                                                                                                                                                                   ש
                                                                                                                                                                                         '3
                                                                                                                                                                                                   χ̈́
                                                                                                                                                                                         chen
regulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             338
                                                                                                                         activities,
                                                                                                                                                                                        R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene therapy;
                                                                                                                                                                                       Y;
Wang
                                                                                                                                                                                         ZW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            410
```

```
RESULT 14
ABG95081
ID ABG95
XX ABG95
XX ABG95
XX Chro
DT 04-D]
XX Chro
RW Prol1
KW Prol1
KW Accui
KW Pap
KW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ន្តន្តន្តន្តន្ត្
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
  WPI; 2002-698710/75.
N-PSDB; ABS73271.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chromosome aberration; oncogenic fusion protein; cancer; proliferative disease; cellular protein isoform; heat shock prot HSP-90; rheumatoid arthritis; cancer; hasmatopoietric disorder; T cell lymphona; B cell lymphoma; chronic myeloid leukaemia; CMI acute myeloid leukaemia; AML; chronic myelomonocytic leukaemia; acute myeloid leukaemia; AML; APL; NHL; solid tumour; papillary thyroid carcinoma; Ewing's sarcoma; melanoma; liposarc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          activity, tissue growth factor activity, immunomodulatory activity and activin/inhibin activity and may be useful in the diagnosis and/or treatment of cancer, leukaemia, nervous system disorders, arthritis and inflammation. Note: Records for SEQ ID NO 2110 (AAK52581), 2111 (AAK52582) and 3666 (AAM80020) are omitted as the relevant pages from the
                                                                                                                                                                                                01-MAR-2001; 2001US-0272751P
                                                                                                                                                                                                                                                      01-MAR-2002;
                                                                                                                                                                                                                                                                                                         12-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human translocation (12; 16)(q13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABG95081;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABG95081 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                               WO200269900-A2
                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rhabdomyosarcoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence listing were missing at the time of publication
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       182;
                                                                                     7,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                          CONFORMA THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PGGDRGRGGPGGMR-GGRGGLMDRGGPGGMFRG---GRGGDRGGFRGGR-GMDRGGFGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DYFKQIGIIKTNKKTGQPMINLYTDRETGKLKGEATVSFDDPPSAKAAIDWFDGKEFSGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DFFKQCGVVKMKKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGRGGMGGS-DRGGFNKFGGPRDQGSRHD-----SEQDNSDNNTIFVQGLGENVTIESVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   526 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RRGGPGGPPGPLMEQMGGRRGGRGGPGKMD-KGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PIKVSFATRRADFN--RGGGNGRGGRG----RGGPMGRGGYGGG----GSGGGGRGGFP
                                                                                       Burrows
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                      2002WO-US006518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGPGGSHMGGNYGDDRRGGRGGYDRGGYRGRGGDRGGFRGGRGGDRGGF---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     synovial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           45.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGGGQQRAGDWKCPNPTCENMNFSWRNECNQCKAPKPDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sarcoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. 5.60
6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score
                                                                                                                                             CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GPGKMDSRGEHRQDRRERPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   p11) protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           878;
No. 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 4;
.6e-63;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 liposarcoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
```

```
Treating genetically-defined disease associated with chromosomal aberrations yielding oncogenic fusion proteins, e.g. cell proliferative diseases, involves administering an inhibitor of heat shock protein 90.
222-223; 389pp; English
```

CC proteins (I), treating cancerous cells containing (I) in a heterogeneous (C cell population, treating cancerous cells containing (I) in a heterogeneous (C cell population, treating proliferative diseases associated with mutant protein or cellular protein isoforms (II) dependent on heat shock protein (C (HSP)-90, or selectively treating cells expressing (II) involving (C genetically-defined disease with chromosomal aberration yielding (C genetically-defined disease with chromosomal aberration yielding (C oncogenic fusion protein, treating cancerous cells containing fusion protein in heterogeneous cell population, treating proliferative disease (e.g. rheumatoid arthritis or cancer) associated with mutant protein or (C cellular protein isoform dependent on heat shock protein or cellular protein isoform dependent on heat shock protein or cellular protein isoform dependent on heat shock protein or cellular protein isoform a patient heterozygous for (II). The method is useful (C protein isoform dependent on heat shock protein dis useful (C protein disease e.g. haematopoietic disorder such as T or B cell (C lymphoma, chronic myeloid leukaemia (CML), APL, ALL, AML, NHL and CMML, (C or a disease characterised by a solid tumour such as papillary thyroid (C carcinoma, Bwing's sarcoma, melanoma, liposarcoma, rabdomyosarcoma and confections. This represents a protein encoded by the DNA sequence of a chromosoma barrarior and protein encoded by the DNA sequence of a chromosoma barrarior and confections. The invention describes a method of treating genetically-defined disease associated with chromosomal aberrations yielding oncogenic fusion aberration

XFFFXXXXSSSSSSSSSSSSSSSSSSSSSS

Sequence B

Query Match Best Local

Length 526;

```
δ
                                                   밁
                                                                             S
                                                                                                            밁
                                                                                                                                     S
                                                                                                                                                                    밁
                                                                                                                                                                                              Ś
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                            S
문
507
                                                     455
                                                                                241
                                                                                                             412
                                                                                                                                        181
                                                                                                                                                                    363
                                                                                                                                                                                               121
                                                                                                                                                                                                                           303
                                                                                                                                                                                                                                                                                  249
                          296
                                                                                                                                                                                                                                                                                                                                         al Similarity
182; Conserv
                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                \vdash
                                                                                                                                                                                                                          DYFKQIGIIKTNKKTGQPMINLYTDRETGKLKGEATVSFDDPPSAKAAIDWFDGKEFSGN
                                                                                                                           PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNPAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                                                                                             DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                             GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                         RRGGPGGPPGPLMEQMGGRRGGRGGPGKMD-KGEHRQERRDRPY 338
                                                                                                             SGG-----
                                                                                                                                                                    PIKVSFATRRADFN--RGGGNGRGGRG----RGGPMGRGGYGGG----GSGGGGRGGFP
                                                                                                                                                                                              KLKYSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                 GGRGGMGGS-DRGGFNKFGGFRDQGSRHD----SEQDNSDNNTIFVQGLGENVTIESVA
                                                                                PGGDRGRGGPGGMR-GGRGGLMDRGGPGGMFRG---GRGGDRGGFRGGR-GMDRGGFGGG
                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                         45.7%; Score 878; DB 5; 52.9%; Pred. No. 5.6e-63; tive 36; Mismatches 54
                                                                                                            -GGGGGQQRAGDWKCPNPTCENMNFSWRNECNQCKAPKPDG-----
                                                                                                                                                                                                                                                                                                                                            54
•
                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                            72;
                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                   295
                                                                                                                                                                                                                             362
                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                     302
                                                      506
                                                                                                             454
                                                                                                                                                                      411
                                                                                                                                                                                                                                                                                                                6
```

05-JUN-2002; 2002JP-00164257.
06-JUN-2002; 2002US-0385912P.
26-DEC-2002; 2002JP-00377326.
27-DEC-2002; 2002JS-0436467P.
15-MAY-2003; 2003JP-00137505.
16-MAY-2003; 2003US-0470836P. rheumatoid arthritis; osteoarthritis; systemic lupus erythematosus; sepsis; asthma; allergic rhinitis; ischaemic heart disease; subarachnoid haemorrhage; viral hepatitis; AIDS. Sugahara 05-JUN-2003; WO2003104277-A2 18-DEC-2003 (ASAH) ASAHI KASEI KK Ť, 2003WO-JP007123 Matsuda ်ပ Muramatsu ά Ishizawa

New signal transducer and activator of transcription 6 activation promoting purified protein, for diagnosing and treating disease associated with activation/inhibition of transcription factor e.g diabetes and cancer.

N-PSDB; ADI26116

Claim 1; SEQ ID NO 82; 1368pp; English.

The invention relates to a purified protein promoting signal transducer cc and activator of transcription 6 activation (STAT6). The protein is useful for the producing an antibody, which involves administering the protein or its epitope-bearing fragments to a non-human animal as an cc antigen. The nucleic acid is useful for diagnosing a disease or cc susceptibility to a disease related to expression or activity of the protein. A transformant expressing the protein is useful for screening cc compounds which inhibit or promote STAT6 activation. A transformant cc expressing the protein is useful for producing a pharmaceutical cc composition. Compositions, antibodies and antisense molecules are useful for the treating a disease associated with STAT6 activation such as allargic diseases, inflammation, autoimmune diseases, diabetes, composition diseases, inflammation, autoimmune diseases, diabetes, of Thi hyperactive diseases. Compositions are also useful in rheumatoid carthritis, osteoarthritis, systemic lupus erythematosus, sepsis, asthma, cc allargic rhinitis, ischaemic heart diseases, subarachnoid haemorrhage, crivation or treating and preventing diseases associated with excessive activation or inhibition of STAT6. The present sequence represents the cc amino acid sequence of a human protein which promotes STAT6 activation.

Sequence 526 AA,

```
밁
                                                                          Ś
밁
                   8
                                                                                                       밁
                                                                                                                              Ś
                                                                                                                                                          Query Match
Best Local S
Matches 182
                        121
                                                    303
                                                                                                        249
                                                                                                                                                             182;
                                                                                                                                                                        Similarity
 PIKVSFATRRADFN--RGGGNGRGGRG----
                      KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                  DYFKQIGIIKTNKKTGQPMINLYTDRETGKLKGEATVSFDDPPSAKAAIDWFDGKEFSGN
                                                                DPFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWPDGKDFQGS
                                                                                                     GGRGGWGGS-DRGGFNKFGGPRDQGSRHD----SEQDNSDNWTIFVQGLGENVTIESVA
                                                                                                                                 GGRGGMGSAGERGGENKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                                                      45.7%;
                                                                                                                                                             36;
                                                                                                                                                        Score 878; DB
Pred. No. 5.6e-
36; Mismatches
                                                                                                                                                                      878; DB 8;
No. 5.6e-63;
                                                                                                                                                                                    Length 526;
  GSGGGGRGGFP
                                                                                                                                                             72;
                                                                               120
                                                     362
                                                                                                          302
                                                                                                                                    60
```

ADI26117
ID ADI26
XX ADI26
AC ADI26
XX ADI26
XX

(first that

entry)

ADI26117 standard;

protein;

Human protein 22-APR-2004

promotes

STAT6

activation #41.

human; signal transducer and activator of transcription 6; STAT6; immunogen; STAT6 activation; allergy; inflammation; autoimmune didiabetes; hyperlipidaemia; infection; cancer; Th1 hyperactive dis

· 1

Searc Job t	문	ş	ᅡ	ş	윩	Ş
Search completed: February 18, 2005, 15:27:34 Job time : 166 secs	507	296 RRGGPGGPPGPLMEQMGGRRGGRGGPGKMD-KGEHRQERRDRPY 338	455 PGGGPGGSHMCGNYGDDRRGGRGGYDRGGYRGRGGDRGGFRGGRGGDRGGF 506	241 PGGDRGRGGPGGMR-GGRGGIMDRGGPGGMFRGGRGGDRGGFRGGR-GMDRGGFGGG 295	412 SGGGGGGGQQRAGDWKCPNPTCENMNFSWRNECNQCKAPKPDG 454	181 PRGPRGSRGNPGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP 240

This Page Blank (uspto)

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OM protein - protein search, using sw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
      1922
11922
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
11810
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BLOSUM62
Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                February 18, 2005, 15:22:02; Search time 45 Seconds
(without alignments)
560.697 Million cell updates/sec
   US-10-791-017A-2_COPY_319_656
1922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                513545 seqs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Issued Patents AA:*

| cgn2_6/ptodata/1/laa/5A_COMB.pep:*
| cgn2_6/ptodata/1/laa/5B_COMB.pep:*
| cgn2_6/ptodata/1/laa/6A_COMB.pep:*
| cgn2_6/ptodata/1/laa/6B_COMB.pep:*
| cgn2_6/ptodata/1/laa/6B_COMB.pep:*
| cgn2_6/ptodata/1/laa/backfIles1.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGRGGMGSAGERGGFNKPGG...........GGPGKMDKGEHRQERRDRPY 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GenCore version
Copyright (c) 1993 - 2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length DB
   Gapext 0
                        US-08-343-443B-2
US-09-214-548A-4
US-09-213-648A-4
US-09-538-092-11250
US-09-949-016-10914
US-09-949-016-7825
US-09-949-016-7825
US-09-503-8125-21
US-09-500-811-21
US-09-500-811-21
US-09-501-6136
US-09-949-016-6136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5.1.6
Compugen Ltd.
                        Sequence 2, Appli Sequence 1250, Ap Sequence 10915, Ap Sequence 10915, Ap Sequence 7825, Ap Sequence 7825, Ap Sequence 21, Appli Sequence 3636, Ap Sequence 6136, Appli Sequence 6136, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Description
                                                                                      ZIP: 19102

ZIP: 19102

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: AEDIT 1.0 DOS text editor
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/343,443B
FILING DATE: 18-NOV-1994
CLASSIFICATION DATA:
APPLICATION NUMBER: PCT/FR93/00494
FILING DATE: 19-MAY-1993
PRIOR APPLICATION NUMBER: FR 92/06123
APPLICATION NUMBER: FR 92/06123
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PS/06123
PRIOR APPLICATION NUMBER: 19-763
REFERENCE/DOCKET NUMBER: 989.6121P
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-875-8383
                           TELEPHONE: 215-875-83
TELEFAX: 215-875-8394
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
```

	45	44	43	42	41	40	39	3 8	37	36	35	ω 4	33	32	31	30	29	28
	253	253	253	257	258	258	258	258.5	258.5	258.5	258.5	258.5	258.5	259	259	. 260	261.5	262
	13.2	13.2	13.2	13.4	13.4		13.4	13.4	13.4			13.4		13.5	13.5	13.5	13.6	13.6
	1442	1442	274	599	1670	1609	689	1418	1418	1418	1418	1418	1060	1057	1017	633	1806	822
	S	N	4	4	4	4	4	ω	w	w	w	w	ω	w	4	-ب	4	ω
ALIGNMENTS	PCT-US95-02251-12	US-08-316-650-12	US-09-976-594-417	US-09-949-016-8890	US-09-949-016-5883	US-09-949-016-10910	US-09-949-016-11276	US-09-548-608-20	US-09-570-573-20	US-09-500-811-20	US-09-010-999-1	US-08-963-825-20	US-08-931-820-3	US-08-931-820-1	US-08-468-996-10	US-08-642-255-73	US-09-919-497-56	US-09-219-849-49
	Sequence 12, Appl	Sequence 12, Appl	Sequence 417, App	Sequence 8890, Ap	Sequence 5883, Ap	Sequence 10910, A	Sequence 11276, A		Sequence 20, Appl	Sequence 20, Appl	Sequence 1, Appli	Sequence 20, Appl	Sequence 3, Appli	Sequence 1, Appli	Sequence 10, Appl	•	Sequence 56, Appl	Sequence 49, Appl

RESULT 1 US-08-343-443B-2 Sequence 2, Application US/08343443B Patent No. 5968734 GENERAL INFORMATION: APPLICANT: Aurrer, Olivre-APPLICANT: Delattre, Olivre-Trant: Desmaze, Chantal APPLICANT: Desmaze, Chantal APPLICANT: Melot, Thomas APPLICANT: Melot, Thomas APPLICANT: Melot, Thomas APPLICANT: Peter, Martine APPLICANT: Peter, Martine APPLICANT: Thomas, Gilles TITLE OF INVENTION: NUCLEIC ACID CORRESPONDING TO A GENE OF TITLE OF INVENTION: TRANSLATIONS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS TITLE OF INVENTION: TRANSLOCATIONS TITLE OF INVENTION: TRANSLOCATIONS NUMBER OF SEQUENCES: 129 CORRESPONDENCE ADDRESS: ADDRESSEE: Weiser & Associates STREET: 230 South Fifteenth Street CITY: Philadelphia STATE: PA COUNTRY: USA Aurias, Alain Delattre, Olivier

acide

```
RESULT 2
US-09-214-564A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ર્
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
밁
                             8
                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-343-443B-2
                                                                                                  Ś
                                                                                                                                                                                                           ; TYPE: PRT
; ORGANISM: Homo
US-09-214-564A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 4, Application US/09214564A Patent No. 6150515
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 338; Conserv
                                                                                                                                                                                                                                                                                 SOFTWARE:
SEQ ID NO 4
                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                               APPLICANT: Sharp, Phillip A.
APPLICANT: Zhou, Qiang
TITLE OF INVENTION: TAT-SF: Cofactor For Stimulation Of Transcriptional
TITLE OF INVENTION: Elongation By HIV-1 TAT
FILE OF INVENTION: Elongation By HIV-1 TAT
FILE REFERENCE: M0656/7042
CURRENT PELICATION NUMBER: US/09/214,564A
CURRENT FILING DATE: 1999-08-18
FRIOR APPLICATION NUMBER: US 60/021,218
PRIOR FILING DATE: 1996-07-03
PRIOR FILING DATE: 1996-07-03
PRIOR APPLICATION NUMBER: US 60/033,152
PRIOR APPLICATION NUMBER: PCT/US97/11713
PRIOR APPLICATION NUMBER: PCT/US97/11713
PRIOR FILING DATE: 1996-12-13
PRIOR FILING DATE: 1996-12-03
PRIOR FILING DATE: 1997-07-03
NUMBER: OF SEQ ID NOS: 5
                                                                                                                                                                                                                                                                 LENGTH: 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 656 amino acid
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 619
379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS 120
                                                                                                                                          338;
                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GGRGGMGSAGERGGFNKPGGFMDEGFDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                                                                                                                                                                                    FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRGPRGSRGNPGGGNVQHRAGDWQCPNPGCGNQNPAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                    DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPTAKAAVEWFDGKDFQGS 120
                                                                                        GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; ilarity 100.0%; Conservative 0
                                                                                                                                        100.0%;
ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                          0
                                                                                                                                        Score 1922; DB 3;
Pred. No. 1.7e-150;
Nismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1922; DB 2;
Pred. No. 1.7e-150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             378
 438
                                                                      378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       438
                                                                                                         60
```

```
APPLICANT: Glot, Loic
APPLICANT: MAINFIELD, Traci A.
APPLICANT: MAINFIELD, Protein-Protein Complexes and
TITLE OF INVENTION: Protein-Protein Complexes and
TITLE OF INVENTION: Protein-Protein Complexes and
TITLE OF INVENTION NUMBER: US/09/538,092
CURRENT APPLICATION NUMBER: 60/127,352
PRIOR APPLICATION NUMBER: 60/127,352
PRIOR APPLICATION NUMBER: 60/178,965
PRIOR FILLING DATE: 2000-02-01
PRIOR FILLING DATE: 2000-02-01
NUMBER OF SEQ ID NOS: 1387
SOFTWARE: CuraPatSeqFormatter Version 0.9
SEQ ID NO 1250
LENGTH: 656
TYPE: PRT
TOPNANISM: Homo samiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
US-09-538-092-1250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: misc feature
LOCATION: (0)...(0)
OTHER INFORMATION: Polypeptide Accession Number Q01844
US-09-538-092-1250
                                                                                                                                          밁
                                                                                                                                                                            Ś
                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                               Ś
                              Ś
                                                                     밁
                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1250, Appli
Patent No. 6753314
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 338;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                           379
                                                                                                                                                                                                                                                                                                                                                                 319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
619
                                  301
                                                                                                                                             499
                                                                                                                                                                                                                   439
                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                61 DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                                                 1 GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     XLXVSLARKXDPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PGGDRGRGGPGGMRGGRGGLMDRGGPGGPGGMPRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPPPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGPP
                                                                                          PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                           PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP
                                                                                                                                                                                                                   KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                      KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP
                                                                                                                                                                                                                                                                                           DFFKQCGVVKWNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                 GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                  GGPPGPLMEQMGGRRGGRGGPGKMDKGEHRQERRDRPY
                                                                     PGGDRGRGGPGGMRGGRGGLMDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/09538092
                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 1922; DB 4;
100.0%; Pred. No. 1.7e-150;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and Method of Using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              338
                                   338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               656;
                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    498
                                                                                                             300
                                                                                                                                                                                   240
                                                                                                                                                                                                                       498
                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                               438
                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                     378
                                                                                                                                               558
                                                                           618
```

```
맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                    US-09-949-016-10915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; ORGANISM: Human
US-09-949-016-10914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-949-016-10914
                                                                                                                                                                                                                                                                                                    Sequence 10915, Application US/09949016 Patent No. 6812339 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS
FILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 318; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 10914
LENGTH: 591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 10914, Application US/09949016 Patent No. 6812339
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR PILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR PILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               334 HIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21 PMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMKKTGGPMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGDWQCPNPGCGNQNFAWRTECNQCKAFKPEGFLPPFFPPPGGDRGRGGPGGMRGGRGGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PGKMDKGEHRQERRDRPY 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MDRGGPGGMFRGGRGGDRGGFRGGRGGMDRGGFRGGGRRGGPPGPLMEQMGGRRGGRGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                        PGKMDKGEHRQERRDRPY 591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1810; DB 4; ]; Pred. No. 2.6e-141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ASSOCIATED OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 591;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   333
```

```
밁
                                                                        S
                                                                                                                 밁
                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-949-016-7825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                         US-09-949-016-7825
                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Human
US-09-949-016-10915
                                                                                                                                                                                                                                                                                       SOPTWARE: FastSEQ for Windows Version
SEQ ID NO 7825
LENGTH: 306
TYPE: PRT
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 10915
LENGTH: 591
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION: APPLICANT: VENTER,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 7825, Application US/09949016 Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 94.3
Best Local Similarity 100.
Matches 318; Conservative
                                                                                                                                                                                              Best Local Similarity Matches 246; Conserv
                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             321 PGKMDKGEHRQERRDRPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         394 PPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    334 HIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             274 PMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMKKRTGQPMI
                                                                                                                   10
                                                                                                                                                     21 PMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21 PMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMKRTGQPMI
PPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHR
                                    HTYLDKETRKPKGDATVSCEDSPTAKAAVEWFDGKDFQGSKLKVSLARKRPPVNSMQGGM
                                                          HIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGL
                                                                                                               PMDEGEDLDLGEPVDFDEDSDNSAI YVQGLNDNVTLDDLVDFFKQCGVVKMNKRTEQPMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGDRGRGGPGGMRGGRGGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGDRGRGGFGGMRGGRGGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFPPRGPRGSRGNPSGGGNVQHR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGSKLKVSLARKKPPMNSMRGGL 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94.2%; Score 1810; DB 4;
100.0%; Pred. No. 2.6e-141;
tive 0; Mismatches 0;
                                                                                                                                                                                          69.6%; Score 1337; DB 4; 78.3%; Pred. No. 1.3e-102; ive 13; Mismatches 37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       591
                                                                                                                                                                                                                                Length 306;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                            18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 333
                                    129
                                                                          140
                                                                                                                 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
```

```
δ
                                                                  밁
                                                                                            8
                                                                                                                                   밁
                                                                                                                                                                 Ś
                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                     ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     १
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
밁
                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-538-092-1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-538-092-1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 1387
SOFTWARE: CuraPatSegFormatter Version
SEQ ID 0 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1080, Applice Patent No. 6753314 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                            Matches 182;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                             Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: 15966-542
CURRENT APPLICATION NUMBER: US/09/538,092
CURRENT FILING DATE: 2000-03-29
PRIOR APPLICATION NUMBER: 60/127,352
PRIOR FILING DATE: 1999-04-01
PRIOR APPLICATION NUMBER: 60/178,965
PRIOR APPLICATION NUMBER: 60/178,965
PRIOR FILING DATE: 2000-02-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Giot, Loic
APPLICANT: Mansfield, Traci A.
TITLE OF INVENTION: Protein-Protein Complexes and Method of Using Same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: misc_feature
LOCATION: (0)...(0)
OTHER INFORMATION: Polypeptide Accession Number P35637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            130
 507
                                 296
                                                                  455
                                                                                                                                     412
                                                                                                                                                                    181
                                                                                                                                                                                                       363
                                                                                                                                                                                                                                                                        303
                                                                                                                                                                                                                                                                                                                                         249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          261 MDRGGPGGMFRGGRGGDRGGFRGGRGMDRGGFGGGRRGGPGGPPGPLMEQMGGRRGGRGG
                                                                                                  241
                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                         ь
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                526
                                                                                                                                     SGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPPPGGDRGRGGFGGMRGGRGGL
                                                                                                                                                                   PRGPRGSRGNPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCKAPKPEGFLPPPFPP 240
                                                                                                                                                                                                                                     KLKVSLARKKPPMNSMRGGLPPREGRGMPPPLRGGPGGPGGPGGPMGRMGGRGGDRGGFP 180
                                                                                                                                                                                                                                                                        DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS 120
                                                                                                                                                                                                                                                                                                                                                                         GGRGGMGSAGERGGFNKPGGFMDEGFDLDLGPPVDFDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PGKMDKGEHRQERR 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGDROCPNPGCGNONFAWRTESNKCKAPKPEGFLPPPFPPPGGDHGRGGPGGMWGGRGGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PPREGRGMPPPLCGGPGGPGSPGSPGGPMGGRGGDRGGLPPRGPQGSRGNTSGGGNVQHQ
                                 RRGGPGGPPGPLMEQMGGRRGGRGGPGKMD-KGEHRQERRDRPY 338
                                                                                                   PGGDRGRGGPGGMR-GGRGGLMDRGGPGGMFRG---GRGGDRGGFRGGR-GMDRGGFGGG 295
                                                                                                                                                                                                       PIKVSFATRRADFN--RGGGNGRGGRG----RGGPMGRGGYGGG----GSGGGGRGGFP
                                                                                                                                                                                                                                                                                                                                         GGRGGMGGS-DRGGFNKFGGPRDQGSRHD-----SEQDNSDNNTIFVQGLGENVTIESVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRTFDVTNGRKKRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MDHGGPGGMFRGGCGRDRSGFRGGWAWTEVA---
                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/09538092
                                                                    GGPGGSHMGGNYGDDRRGGRGGYDRGGYRGRGGDRGGFRGGRGGGDRGGF----
                                                                                                                                                                                                                                                                                                                                                                                                                           45.7%;
                                                                                                                                     GGGGGOORAGDWKCPNPTCENMNFSWRNECNOCKAPKPDG--
                                                                                                                                                                                                                                                                                                                                                                                                        ; Score 878; DB 4;
; Pred. No. 1.7e-64;
36; Mismatches 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0.9
                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4; Length 526;
                                                                                                                                                                                                                                                                                                                                                                                                            54;
                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -LVEE---DKVALGG
                                                                                                                                                                                                                                                                                                                                                                                                          72;
                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             249
                                                                                                                                                                                                                                                                          362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            189
                                                                                                                                     454
                                                                                                                                                                                                       411
                                                                                                                                                                                                                                                                                                                                                                          60
```

RESULT

RESULT 9 US-08-963-825-21

Sequence 21, Application US/08963825
Patent No. 6110689
GENERAL INFORMATION:
APPLICANT: Qvist, Per

```
US-08-343-443B-7
                             Ś
                                                                    닭
                                                                                                    Ş
밁
                                                                                                                                                                                                                US-08-343-443B-7
                                                                                                                                           Matches
                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: AEDIT 1.0 DOS text editor
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/343,443B
FILING DATE: 18-NOV-1994
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/FR93/00494
FILING DATE: 19-MAY-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL
                                                                                                                                                                                                                                                                                                       TELEFAX: 215-875-8394 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Weiser, Gerard J.
REGISTRATION NUMBER: 19,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 20-MAY-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: ZUCMAN, JESSICA

TITLE OF INVENTION: UCLEIC ACID CORRESPONDING TO A GENE OF
TITLE OF INVENTION: CHROMOSOME 22 INVOLVED IN RECURRENT CHROMOSOMAL
TITLE OF INVENTION: TRANSLATIONS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS
TITLE OF INVENTION: TUMORS, AND NUCLEIC ACIDS OF FUSION RESULTING FROM SAID
TITLE OF INVENTION: TRANSLOCATIONS
TITLE OF INVENTION: TRANSLOCATIONS
TOMORS, AND NUCLEIC ACIDS OF FUSION RESULTING FROM SAID
TITLE OF INVENTION: TRANSLOCATIONS
NUMBER OF SEQUENCES: 129
                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 86 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: 2
CITY: Phi
                                                                                                                                                            Local
                                                                                                                                                                                                                                                                                                     TELEPHONE: Z15-C. 394
                                                                                                                                                                                                                                  TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: U
ZIP: 19102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                  LENGTH:
                    105 AKAAVEWFDGKDFQGSKLKVSLARKK 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION:
61
                                                                                     45 IYVQGLNDSVTLDDLADFFKQCGVVKMKKTGQPMIHIYLDKETGKPKGDATVSYEDPPT 104
                                                                                                                                       86;
                                                                      ۳.
                                                                                                                                                            Similarity
AKAAVEWFDGKDFQGSKLKVSLARKK
                                                                      IYVQGLNDSVTLDDLADFFKQCGVVKMKRTGQFMIHIYLDKETGKFKGDATVSYEDFFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Application US/08343443B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3: Weiser & Associates
230 South Fifteenth Street
                                                                                                                                         23.6%; Sillarity 100.0%; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            iladelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ploougastel, Bu
Thomas, Gilles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peter, Martine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Delattre, Olivie
Desmaze, Chantal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Aurias, Alain
                                                                                                                                                                                                                                                                                                                                            215-875-8383
                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-MAY-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FR 92/06123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Beatrice
                                                                                                                                                                                                                                                                                                         7:
                                                                                                                                         s; Pred. No. 2.5
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                               .6121P
86
                                                                                                                                           2.5e-30;
hes 0;
                                                                                                                                                                              DB 2;
                                                                                                                                                                          Length 86
                                                                                                                                             Indels
                                                                                                                                             <u>,</u>
                                                                                                                                             Gaps
                                                                        60
                                                                                                                                             0
```

```
US-08-963-825-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Simi
Matches 115;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 236
CLASSIFICATION: 436
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/
TOTAL DATE: 21-JAN-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IMMEDIATE SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 1078 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 4: TELECOMMUNICATION INFORMATION TELEPHONE: 212-527-7700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 21-JAN-1994
ATTORNEY/AGENT INFORMATION:
NAME: Gogoris, Adda C
REGISTRATION NUMBER: 29,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: 214-7-
TELEPHONE: 214-7-
TELEPHONE: 214-7-
TELEPHONE: 214-7-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE:
  520
                                         264
                                                                               460
                                                                                                                       227
                                                                                                                                                            415
                                                                                                                                                                                                    172
                                                                                                                                                                                                                                              362
                                                                                                                                                                                                                                                                                                                             344
                                                                                                                                                                                                                                                                                                                                                                                                          291
                                                                                                                                                                                                                                                                               121 KLKVSLARKKPPMNSMRG--GLPPREGRGMPPPLRGGPGGPGGPG-----GPMGRMG--G
                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA
                                                                                                                                                                                                                                                                                                                                                              DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS 120
                                                                                                                                                                                                                                                                                                                                                                                                      GAKGEPGPRGERGEAGIPGVPGAKGEDGKDGSPGDPGANGLPGAAGERGALGS-----
  APGAPGGKGDAGAPGERGPPGLAGAPGLRGGAG-PPGPEGGKGAAGPPGPPGAAGTPGLQ
                                     --GGPGGMFRGGRGGDRG-----GFRGGRGMDRGGFGGGRRGGPGGPPG----PLME
                                                                                                                                                            RPGPPG---PSGPRGQPGVMGFPGPKGNDGAPGKNGERGGPG-GPGPQG------
                                                                                                                                                                                                  RGGDRGGFPPRGPRGSRG-----NPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCK 226
                                                                                                                    APKPEGFLPPPFPP----PGGDRGRGGPGGMRG-----GRGGLMDR------
                                                                                                                                                                                                                                           ----RGAPGPAGPRGAAGEPGRDGVPGGPGWRGMPGSPGGPGSDGKPGPPGSQGESG
                                                                             PPGKNGEYGPQGPPGPTGPGGDKGDTGPRGPQGLQGLPGTGGPPGENEKPGEPGPKGEAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COLLAGEN ALPHA 1 (III)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B: Darby & Darby PC
805 Third Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Martin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A Method for Assaying Collagen Fragments
in Body Fluids, A Test Kit and Means for Carrying Out
Method and Use of the Method to Diagnose the Presence
Disorders Associated with the Metabolism of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15.8%; Score 303; DB 3 30.3%; Pred. No. 1e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US/08/187,319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US/08/963,825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29,714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15; Mismatches 126;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4305/08701
                                                                                                                                                                                                                                                                                                                           ----RGPAGPNGIPGEKGPAGE------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 3; Length 1078;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                 171
578
                                     309
                                                                             519
                                                                                                                                                            459
                                                                                                                                                                                                                                           414
                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                    263
```

밁

Ś

Ś

S 밁

유

밁 á 밁 ঠ

S

```
Ś
                               문
                                                           S
                                                                                              片
                                                                                                                       5
                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                                                                        US-09-500-811-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-500-811-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 21, App.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No. 6323314
GENERAL INFORMATION:
                                                                                                                                                                                                                         Matches 115;
                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEX: 236687
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                   IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/500,811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION: TELEPHONE: 212-527-7700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: Gogoris, Adda C
REGISTRATION NUMBER: 29,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: 212-753-6237
                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                         CLONE:
                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   579
                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 310
 172 RGGDRGGFPPRGPRGSRG---
                                                                                                                          61 DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New York
: New York
                                                                                                                                                                                                                                                                                                                                                                                                    amino acid
                                                             KLKVSLARKKPPMNSMRG--GLPPREGRGMPPPLRGGPGGPGGPG-----GPMGRMG--G
                                                                                                                                                                                           GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA 60
                                                                                                                                                            GAKGEPGPRGERGEAGIPGVPGAKGEDGKDGSPGDPGANGLPGAAGERGALGS---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GMPGERGGLGSPGPKGDKGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OMGGRRGGRGGPG-KMDKGE 328
                                                                                                                                                                                                                                                                                                         COLLAGEN ALPHA 1 (III)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Application US/09500811
                                                                                                                                                                                                                                                                                                                                                                                                                     1078 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         805 Third Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Qvist,
Bonde,
                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Darby & Darby PC
                                                                                                                                                                                                                                                                                                                                                                   protein
                               RGAPGPAGPRGAAGEPGRDGVPGGPGMRGMPGSPGGPGSDGKPGPPGSQGESG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Martin
                                                                                                                                                                                                                                        15.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disorders Associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A Method for Assaying Collagen Fragments
in Body Fluids, A Test Kit and Means for
Method and Use of the Method to Diagnose
Disorders Associated with the Metabolism
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08/187,319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29,714
                                                                                                                                                                                                                                                                                                                                                                                                                                                   21:
                                                                                                                                                                                                                         15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4305/08701
                                                                                                                                                                                                                                        Score 303; DB 3
Pred. No. 1e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   598
--- NPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCK 226
                                                                                                                                                                                                                           Mismatches
                                                                                              -RGPAGPNGIPGEKGPAGE-----
                                                                                                                                                                                                                                                         DB 3;
                                                                                                                                                                                                                           126;
                                                                                                                                                                                                                                                       Length 1078;
                                                                                                                                                                                                                           Indels 124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       r Carrying Out
the Presence
n of
                                                                                                                                                                                                                         Gaps
                                                                                                                          120
                               414
                                                               171
                                                                                              361
                                                                                                                                                            343
```

```
뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-570-573-21
                                                                                                                            US-09-570-573-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 21, Application Patent No. 6342361
GENERAL INFORMATION:
                                                                        Query Match
Best Local (
                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Qvist, Per APPLICANT: Bonde, Martin APPLICANT: Bonde, Martin TITLE OF INVENTION: in Bod TITLE OF INVENTION: Method TITLE OF INVENTION: Disord NUMBER OF SEQUENCES: 21
                                                                                                                                                                                                                                                                                                          TELEX: 236687
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                 MOLECULE TYPE: 1
ORIGINAL SOURCE:
ORGANISM: Hom
                                                                                                                                                                                                                                                                                                                                                          NAME: GOGORÍS, Adda C
REGISTRATION NUMBER: 29,714
REFERENCE/DOCKET NUMBER: 43
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-527-7700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                           IMMEDIATE SOURCE:
CLONE: COLLAGEN ALPHA 1 (III)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                       hes 115;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET:
                                                                                                                                                                                                                                          TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                               TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE:
                                                                                                                                                                                                                                                                        ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     227 APKPEGFLPPPFPP----PGGDRGRGGPGGMRG-----GRGGLMDR---------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New York
                                                                        Similarity
                                                                                                                                                                                                                                                       amino acid
GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GMPGERGGLGSPGPKGDKGE 598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APGAPGGKGDAGAPGERGPPGLAGAPGLRGGAG-PPGPEGGKGAAGPPGPPGAAGTPGLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              --GGPGGMFRGGRGGDRG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PPGKNGEYGPQGPPGPTGPGGDKGDTGPRGPQGLQGLPGTGGPPGENEKPGEPGPKGEAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QMGGRRGGRGGPG-KMDKGE 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RPGPPG---PSGPRGQPGVMGFPGPKGNDGAPGKNGERGGPG-GPGPQG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application
                                                                                                                                                                                                                                                                          1078 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               805 Third Avenue
                                                                                                                                                                                                                                                                                                                                                 212-753-6237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                       linear
                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Darby & Darby PC
                                                                                                                                                                                                                    protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A Method for Assaying Collagen Fragments
in Body Fluids, A Test Kit and Means for Carrying Out
Method and Use of the Method to Diagnose the Presence
Disorders Associated with the Metabolism of
                                                      15.8%; Score 303; DB 3 30.3%; Pred. No. 1e-16; tive 15; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US/09570573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08/187,319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                us/09/570,573
                                                                                                                                                                                                                                                                                                           21:
                                                                                                                                                                                                                                                                                                                                                                                                     4305/08701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -GFRGGRGMDRGGFGGGRRGGPGGPPG----PLME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Version
                                                                                       DB 3; Length 1078;
                                                         126;
                                                       Indels 124;
                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          459
```

INFORMATION FOR SEQ ID NO:

TELEFAX:

212-753-6237

SEQUENCE CHARACTERISTICS:

LENGTH:

MOLECULE TYPE: ORIGINAL SOURCE:

TOPOLOGY: linear

amino acid

1078 amino acids

NAME: Gogoris, Adda C REGISTRATION NUMBER: 29,714 REFERENCE/DOCKET NUMBER: 43 TELECOMMUNICATION INFORMATION: TELEPHONE: 212-527-7700

29,714

4305/08701

```
ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-548-608-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 21, Apprisequence 21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent No. 6355442
GENERAL INFORMATION:
                                     FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 01
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                           MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Darby & I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       415 RPGPPG---PSGPRGQPGVMGFPGPKGNDGAPGKNGERGGPG-GPGPQG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   579 GMPGERGGLGSPGPKGDKGE 598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               310 QMGGRRGGRGGPG-KMDKGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              520 APGAPGGKGDAGAPGERGPPGLAGAPGLRGGAG-PPGPEGGKGAAGPPGPPGAAGTPGLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             264 -- GGPGGMFRGGRGGDRG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             460 PPGKNGEYGPQGPPGPTGPGGDKGDTGPRGPQGLQGLPGTGGPPGENEKPGEPGPKGEAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 KLKVSLARKKPPMNSMRG--GLPPREGRGMPPPLRGGPGGPGGPG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           291 GAKGEPGPRGERGEAGIPGVPGAKGEDGKDGSPGDPGANGLPGAAGERGALGS------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RGGDRGGFPPRGPRGSRG-----NPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCK 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APKPEGFLPPPFPP----PGGDRGRGGPGGMRG-----GRGGLMDR-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----RGAPGPAGPRGAAGEPGRDGVPGGPGMRGMPGSPGGPGSDGKPGPPGSQGESG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/09548608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qvist,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bonde, Martin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Darby & Darby PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Third Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A Method for Assaying Collagen Fragments
in Body Fluids, A Test Kit and Means for
Method and Use of the Method to Diagnose
Disorders Associated with the Metabolism
                                                                                                                                                                                                                                             US/09/548,608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ---- RGPAGPNGI PGEKGPAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GFRGGRGMDRGGFGGGRRGGFGGFFG----PLME 309
                                                                                                                                                                                                                                                                                                                                 Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -GPMGRMG--G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Carrying Out
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of
```

```
RESULT 13
US-08-931-820-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; IMMEDIATE SOURCE:
; CLONE: COLLAGEN ALPHA 1 (III)
US-09-548-608-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 4, Application Patent No. 6010863 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 4
SEQUENCE CHARACTERISTICS:
LENGTH: 1057 amino acids
                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                       ORIGINAL SOURCE:
                                                                                                                       HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                     TYPE: amino acid
STRANDEDNESS: si
NAME/KEY: Modified-site
LOCATION: 1055
OTHER INFORMATION: /label= Modified
                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity 30.3 es 115; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                  TISSUE TYPE:
                                                                                      ORGANISM:
                                                                                                                     LECULE TYPE: protein POTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   264 --GGPGGMFRGGRGGDRG-----GFRGGRGMDRGGFGGGRRGGPGGPPG----PLME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GMPGERGGLGSPGPKGDKGE 598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APGAPGGKGDAGAPGERGPPGLAGAPGLRGGAG-PPGPEGGKGAAGPPGPPGAAGTPGLQ 578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RPGPPG---PSGPRGQPGVMGFPGPKGNDGAPGKNGERGGPG-GPGPQG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RGGDRGGFPPRGPRGSRG-----NPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCK 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----RGAPGPAGPRGAAGEPGRDGVPGGPGMRGMPGSPGGPGSDGKPGPPGSQGESG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KLKVSLARKKPPMNSMRG--GLPPREGRGMPPPLRGGPGGPGGPG-----GPMGRMG--G 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----RGPAGPNGIPGEKGPAGE-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAKGEPGPRGERGEAGI PGVPGAKGEDGKDGS PGDPGANGLPGAAGERGALGS-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QMGGRRGGRGGPG-KMDKGE 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PPGKNGEYGPQGPPGPTGPGGDKGDTGPRGPQGLQGLPGTGGPPGENEKPGEPGPKGEAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APKPEGFLPPPFPP----PGGDRGRGGPGGMRG-----GRGGLMDR-----
                                                                  Homo sapiens
PE: Collagen type
                                                                                                                                                         linear
                                                                                                                                                                   single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15.8%; Score 303; DB 3; Length 1078; 30.3%; Pred. No. 1e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US/08931820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Аввау
                                                                                                                                                                                                                                                                             된
                                                                                                                                                                                                                                                                                                                                           US/08/931,820
                                                                                                                                                                                                                                          4.
                                                                                                                                                                                                                                                                             96202596.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for collagen degradation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15; Mismatches 126;
                                                                                                                                                                                                                                                                                                                                                                              Version
                                                                                                                                                                                                                                                                                                                                                                            #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels 124;
                                                                                                                                                                                                                                                                                                                                                                              (EPO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 343
```

```
문
                                   ঠ
                                                                           밁
                                                                                                             ঠ
                                                                                                                                                                                                                               ; ORGANISM: Human
US-09-949-016-8369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 14
US-09-949-016-8369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ᅜ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-931_820-4
                                                                                                                                                     Best Loc
Matches
                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
SEQ ID NO 8369
LENGTH: 955
                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: VENTER,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 8369, Application US/09949016 Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity Matches 116; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF FILE REFERENCE: CL001107
CURRENT APPLICATION NUMBERS. 177 / 7 / 7 / 7
                                                                                                                                                                                                                                                                       TYPE: PRT
                                                                                                                                                     Local Similarity
les 123; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: /note= "Ala may be
   614
                                                                         555 GGSGGSPDGAGGSKLPPVLANLMGSMGAGKGPQGPGGGGINVQEILTSIMGSPNSHPSE-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           310 QMGGRRGGRGGPG-KMDKGE 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     264 -- GGPGGMFRGGRGGDRG-----GFRGGRGMDRGGFGGGRRGGPGGPPG----PLME 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       290
                                     40 SDNSAIYVQGLNDSVTLDDLADFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                 GGRGG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GMPGERGGLGSPGPKGDKGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APGAPGGKGDAGAPGERGPPGLAGAPGLRGGAG-PPGPEGGKGAAGPPGPPGAAGTPGLQ 577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APKPEGFLPPPFPP----PGGDRGRGGPGGMRG-----GRGGLMDR-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RPGPPG---PSGPRGQPGVMGFPGPKGNDGAPGKNGERGGPG-GPGPQG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RGGDRGGFPPRGPRGSRG-----NPSGGGNVQHRAGDWQCPNPGCGNQNFAWRTECNQCK 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAKGEPGPRGERGEAGIPGVPGAKGEDGKDGSPGEP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGRGGMGSAGERGGFNKPGGPMDEGPDLDLGPPVDPDEDSDNSAIYVQGLNDSVTLDDLA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PPGKNGETGPQGPPGPTGPGGDKGDTGPPGPQGLQGLPGTGGPPGENGKPGEPGPKGDAG 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----RGAPGPAGPRGAAGEPGRDGVPGGPGMRGMPGSPGGPGSDGKPGPPGSQGESG 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KLKVSLARKKPPMNSMRG--GLPPREGRGMPPPLRGGPGGPGGPG-----GPMGRMG--G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DFFKQCGVVKMNKRTGQPMIHIYLDKETGKPKGDATVSYEDPPTAKAAVEWFDGKDFQGS 120
                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GLPGAAGERGAPGFR-----GPAGPNGIPGEKGPAGE
                                                                                                                                                                                                                                                                                                                              for Windows Version
                                                                                                                                                 13.9%; Score 266.5; DB 4; 30.8%; Pred. No. 9.2e-14; cive 19; Mismatches 143;
   -ELLKQPDYSDKIKQM-LVPHGLLGPGPIANGFPPGGPGGPKG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15.7%; Score 301; DB 3; 30.5%; Pred. No. 1.5e-16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15; Mismatches
                                                                                                               ---MGSAGERGGFNKPGG---PMDEGPDLDLGPP-VDPDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       597
                                                                                                                                                                                                                                                                                                                              4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pro"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1057;
                                                                                                                                                     Indels
                                                                                                                                                                                         Length 955;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----GAN-----
                                                                                                                                                   115;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               124;
                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
-MO
 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    171
                                     99
                                                                           613
                                                                                                               39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     328
                                                                                                                                                     22
```

Search completed: February 18, 2005, 15:31:22 Job time : 47 secs